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PROCEEDINGS

OF THE

ZOOLOGICAL SOCIETY OF LONDON.

January 10, 1837.

W. B. Scott, Esq., in the Chair.

A paper was read, entitled "Observations on the Phosphorescence of the Ocean, made during a voyage from England to Sydney, N.S. Wales." By George Bennett, Esq., F.L.S., Corresp. Member of the Society.

The author commences this paper with adverting to the very slight progress which naturalists have made in their attempts to elucidate the history of the phænomena connected with the phosphorescence of the ocean, and notices some of the imaginary advantages which former observers have attributed to its presence; among others that of its indicating to mariners the existence of shoals and soundings, a circumstance which his own experience has not enabled him to confirm. He then proceeds to remark, that the sea, when phosphorescent, exhibits two distinct kinds of luminosity, one in which its surface appears studded with scintillations of the most vivid description, more particularly apparent as the waves are broken by the violence of the wind or by the passage of the ship through them, as though they were electric sparks produced by the collision, and which scintillations he considers are probably influenced, in some measure, by an electric condition of the atmosphere, as at those particular times they were observed to be much more vivid and incessant than at others. The other kind of luminosity spoken of has more the appearance of sheets or trains of whitish or greenish light, often sufficiently brilliant to illuminate the vessel as it passes through, being produced by various species of *Salpa*, *Beroë*, and other Molluscs, while in the former case the scintillations, which adhere in myriads to the towing net when drawn out of the water, probably originate in animalcules so minute that the only indication of their presence is the light which they emit.

The author remarks that "the luminosity of the ocean is often seen with greater constancy and brilliancy of effect between the latitudes 3° and 4° north and 3° or 4° south of the equator, than at any other part of the tropical regions. This circumstance, which I have observed myself, if found to be borne out by repeated observations, may be occasioned by the eddies arising from currents, for it is a curious fact worth noticing, that where currents are known to exist, the luminosity of the ocean has been observed to assume a higher degree of brilliancy. Now the westerly current is supposed to run between those parallels of latitudes from 20° or 22° west lon-

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gitudes towards the Brazilian coast perpetually, and it is not improbable that nearly at the termination of the north-east trade wind a current joins with a similar current carried by the south-east trade wind; both uniting in forming the westerly current may thus cause a greater assemblage of the various tropical molluscs and crustaceous animals, a number of which possessing luminous properties may impart by their presence a higher degree of phosphorescence in that particular portion of the ocean than is observed in other situations except from similar causes. That the diffusion of the phosphoric light possessed by these molluscs does not solely depend on the creatures being disturbed (such as the passage of the ship through the water, or other somewhat similar causes,) is evident, as a luminous mass may frequently be observed to gradually diffuse its brilliant light, at some distance from the ship, without any apparent disturbance; and often during calm nights a similar glow of light is diffused over the water, without there being any collision of the waves to bring it forth; and if a light breeze springs up during the same night, the passage of the vessel leaves no brilliant trace in its wake, although the same spontaneous diffusion of light is observed in the water at some distance to be repeated as before; the phosphoric light being confined apparently solely to the occasional groups of molluscs, which when we succeeded in capturing them in the towing net, resembled for the most part pieces of crystal cut into various fantastic forms, round, oval, hexagonal, heptagonal, &c. From the bodies of these a faint or a bright light (according to the greater or less duration of time the animal may have been removed from the water, that is, we may say, by the intensity of its light we can judge of its healthy or vigorous state,) would be seen to issue in minute dots from various parts; and on the examination of both large and small specimens, the large with the naked eye and the small under a powerful lens, I could not detect any one peculiar secreting organ for this luminous excretion.

" It has often occurred during the voyage that the ocean became suddenly brilliantly luminous, and at other times merely a constant succession of scintillations were visible. Again, it was remarked that no luminosity of the ocean was visible except what proceeded from the wake of the ship, the other parts of the ocean exhibiting no phosphorescence.

" On the 15th of April, 1835, in lat. 8° 45′ north, and longitude 21° 02′ west, during the day large quantities of a beautiful pink *Medusa* were taken in the towing net, which species I was previously aware possessed luminous powers, and as expected, at night the ocean was brilliantly luminous, which luminosity continued until about 8 P.M., after which time it had almost totally disappeared. During the time the phosphorescence was visible, the *Medusa* before mentioned was captured in large numbers, but on the disappearance of the luminosity no more were caught, evidently showing that the phosphorescence of the sea this evening was occasioned by their presence. I have frequently remarked that when the ocean appears brilliantly luminous, besides the animals producing the phosphorescence, several crustaceous animals and a number of small fish are usually taken in large quantities: the presence of these may proceed from their being attracted by the phosphoric light. Sometimes during heavy rains within the tropics the sea would become suddenly luminous, as rapidly passing off again, and the effect of the sudden transitions was exceedingly splendid to the beholders. During its continuance luminous species of *Salpa*, *Beroë*, *Pyrosoma*, and other molluscs were captured in the towing net if the weather admitted of its being placed overboard."

On placing some of these luminous *Medusæ* in a bucket of water, Mr. Bennett observed that the phosphoric light is not emitted from any one particular part of the animal, but commences at different points, gradually extending over the whole body, sometimes suddenly disappearing, and at others slowly dying away. Upon squeezing the animal the hands became covered with a profusion of the luminous secretion, which could be communicated from one object to another. In conclusion several additional instances are related, occurring in different latitudes, of the beautiful and varied appearances presented by the phænomena of marine phosphorescence.

Mr. Martin directed the attention of the Meeting to three specimens of the genus *Felis*, recently presented to the Society by Charles Darwin, Esq. One of these appeared to be a cat of the domestic race, shot in a wild state at Maldonado, differing only from our common cat in the elongation and greater size of the head. The second was the "Chat Pampa" of Azara, *Felis Pajeros* of Desmarest, shot at Bahia Blanca in latitude 33. The third and most interesting specimen, which had been shot at Buenos Ayres, Mr. Martin was disposed to consider as the Yagourondi or a closely allied species, since it agrees with that animal in its elongate form, stout limbs and small head, but differs from it in the greater proportionate length of tail, and also in its entire dimensions, as recorded by Desmarest, who gives the following:

	ft.	in.	lin.
Length from nose to the root of the tail .	1	11	0
Length of tail	1	1	9
Length from nose to the ear	0	3	2

In the present specimen, which is evidently adult, the measurements were found to be as follows:

	ft.	in.	lin.
Length from nose to root of tail........	2	2	0
——— of tail	1	8	0
——— from nose to ear...............	0	3	9
Height at shoulders...................	0	11	6
——— at haunches..................	1	0	6
Length of ear	0	1	2
Breadth of ear......................	0	1	6
From nose to eye....................	0	1	2

The hair is black, annulated with ochre, and sometimes with whitish yellow; each hair is pale brown at the base and then alternately black and yellow, the colours being repeated two or three times.

Upon the head the yellow colour is most prevalent. The under fur is thick and of a pale brown colour. The hair is about the same length or rather shorter than in the domestic cat, and much harsher to the touch. The hind feet are black beneath from the heel to the toes, and there is a streak of black about an inch and a half in length, passing upwards from the front paw on the outer side. The hair of the tail is long and bushy; the legs thick and moderately long; the general form is slender; the head small in proportion to the body, and considerably arched above. The region of the anterior angle of the eye is black, with a yellowish white spot immediately above it. The eyes are very small; the ears short, broad, and obtusely pointed, thickly covered with hair, which on the outside is of a similar colour to that on the top of the head, excepting at the tip, where it is margined with black. Inside the ears the hair is of a paler hue. The under parts of the body are of the same general hue as the sides. The tail is of the same general colour as the body, but the hairs become gradually less annulated towards the tip, their basal portions being brown and the apices black; the under side is of a somewhat paler hue than the upper. The lips and nose are black.

Mr. Martin remarked, that there was some reason for supposing two species were confounded under the same name, for he was aware of the existence of a cat with a shorter tail, agreeing very closely with Azara's description of the Yagourondi. Without, however, being in possession of more ample materials he did not like to characterize the present specimen as a new species, but in the event of its ultimately being considered distinct, he proposed that it should be called *Felis Darwinii.*

Mr. James Reid read some notes on several quadrupeds, also from the collection of Mr. Darwin, including a new species of *Opossum,* which he characterized as *Didelphis hortensis**. He also noticed a very young specimen of the *Viscache, Lagostomus trichodactylus* of Brooks. This example, not much larger than our common *Rat,* differs from the adult in wanting the ridge of stiff black hairs over the eyes so conspicuous in old specimens, and in wanting also the grooves on the teeth.

Mr. Gould exhibited from Mr. Darwin's collection of *Birds,* a series of *Ground Finches,* so peculiar in form that he was induced to regard them as constituting an entirely new group, containing 14 species, and appearing to be strictly confined to the Galapagos Islands. Mr. Gould believed the whole of these *Birds* to be undescribed, and remarked that their principal peculiarity consisted in the bill presenting several distinct modifications of form, while the general contour of the species closely assimilated. He proposed to characterize them under the separate generic appellations of *Geospiza, Camarhynchus, Cactornis,* and *Certhidea.*

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* The characters of species newly described which have not yet been furnished by the respective authors, andare the refore necessarily omitted, will be inserted, if subsequently sent in, at the termination of the volume.

GEOSPIZA.

Corporis figura brevissima et robusta.

Rostrum magnum, robustum, validum, altitudine longitudinem præstante; *culmine* arcuato et capitis verticem superante, apice sine denticulo, lateribus tumidis.

Naribus basalibus et semitectis plumis frontalibus.

Mandibulâ superiori tomiis medium versus sinum exhibentibus, ad *mandibulæ inferioris* processum recipiendum. *Mandibula inferior* ad basin lata, hoc infra oculos tendente. Alæ mediocres *remige primo* paulo breviore secundo, hoc longissimo.

Cauda brevissima et æqualis.

Tarsi magni et validi, *digito postico*, cum *ungue* robusto et *digito* intermedio breviore; *digitis* externis inter se æqualibus at *digito postico* brevioribus. Color in maribus niger, in fœm. fuscus.

GEOSPIZA MAGNIROSTRIS. (Spec. typ.) *Geos. fuliginosa, crisso cinerascenti-albo; rostro nigro brunnescente lavato; pedibus nigris.*

Long. tot. 6 unc.; *alæ*, $3\frac{1}{2}$; *caudæ*, 2; *tarsi*, 1; *rostri*, $\frac{7}{8}$; alt. *rost.*, 1.

Fœm., vel Mas jun.; *corpore intensè fusco singulis plumis olivaceo cinctis; abdomine pallidiore; crisso cinerascenti-albo; pedibus et rostro, ut in mare adulto.*

GEOSPIZA STRENUA. *Geos. fuliginosa, crisso albo, rostro fusco et nigro tincto; pedibus nigris.*

Long. tot. $5\frac{1}{2}$ unc.; *alæ*, 3; *caudæ*, $1\frac{3}{8}$; *tarsi*, $\frac{3}{4}$; *rostri*, $\frac{5}{8}$; alt. *rost.* $\frac{3}{8}$.

Fœm. *Summo corpore fusco singulis plumis nec non illis alarum caudæque, pallidè cinerascenti-olivaceo cinctis; gulâ et pectore fuscis; abdomine lateribus et crisso pallidè cinerascenti-fuscis; rostro brunnescente.*

GEOSPIZA FORTIS. *Geos. intense fuliginosa, crisso albo; rostro rufescenti-brunneo, tincto nigro; pedibus nigris.*

Fœm. (vel Mas jun.) *Corpore suprà pectore et gutture intensè fuscis, singulis plumis cinerascenti-olivaceo marginatis; abdomine crissoque pallidè cinerascenti-brunneis; rostro rufescenti-fusco flavescente ad apicem; pedibus ut in mare.*

GEOSPIZA NEBULOSA. *Geos. summo capite et corpore nigrescenti-fuscis; singulis plumis cinerascenti-olivaceo marginatis; corpore subtus pallidiore, abdomine imo crissoque cinerascentibus; rostro et pedibus intensè fuscis.*

Long. tot. 5 unc.; *alæ*, $2\frac{3}{4}$; *caudæ*, $1\frac{3}{4}$; *tarsi*, $\frac{3}{4}$; *rostri*, $\frac{5}{8}$; alt. *rost.*, $\frac{1}{2}$.

GEOSPIZA FULIGINOSA. *Geos. intensè fuliginosa, crisso albo, rostro fusco; pedibus nigrescenti-fuscis.*

Long. tot. $4\frac{1}{2}$ unc.; *alæ*, $2\frac{1}{2}$; *caudæ*, $1\frac{5}{8}$; *tarsi*, $\frac{3}{4}$; *rostri*, $1\frac{1}{2}$; alt. *rostri*, $\frac{3}{8}$.

Fœm. *Summo corpore, alis, caudâque intensè fuscis; singulis plumis cinerascenti-ferrugineo marginatis; corpore infra cinereo, singulis plumis medium versus obscurioribus; rostro brunneo; pedibus nigrescenti-brunneis.*

GEOSPIZA DENTIROSTRIS. (Fœm. Mas ignotus.) *Mandibulæ superioris margine in dentem producto; vertice corporeque suprà fuscis; singulis plumis medium versus obscurioribus; secundariis tectricibusque alarum ad marginem stramineis; gutture et pectore pallidè brunneis, singulis plumis medium versus obscurioribus, imo abdomine crissoque cinerascenti-albis; rostro rufo-fusco; pedibus obscurè plumbeis.*

Long. tot. $4\frac{3}{4}$; *alæ*, $2\frac{3}{8}$; *caudæ*, $1\frac{3}{4}$; *rostri*, $\frac{1}{2}$; alt. *rost.* $\frac{3}{8}$.

GEOSPIZA PARVULA. (Mas.) *Geos. capite, gutture, et dorso fuliginosis; uropygio cinerascenti-olivaceo; caudâ et alis nigrescenti-brunneis; singulis plumis caudæ et alarum cinereo-marginatis; lateribus olivaceis fusco guttatis; abdomine et crisso albis, rostro et pedibus nigrescenti-brunneis.*

Long. tot. 4 unc.; *alæ*, $2\frac{3}{8}$; *caudæ*, $1\frac{1}{2}$; *tarsi*, $\frac{3}{4}$; *rostri*, $\frac{3}{8}$; alt. *rost.*, $\frac{5}{16}$.

Fœm. *Summo capite et dorso cinerascenti-brunneis, gutture, pectore, abdomine crissoque pallidè cinereis, stramineo tinctis.*

GEOSPIZA DUBIA. (Fœm. Mas ignot.) *Geos. summo capite et corpore suprà fuscis, singulis plumis cinerascenti-olivaceo marginatis; strigâ superciliari, genis, gutture corpore infrà cinerascenti-olivaceis, singulis plumis notâ centrali fuscâ; alis caudâque brunneis singulis plumis olivaceo-cinereo marginatis; rostro sordidè albo, pedibus obscurè fuscis.*

Long. tot. $3\frac{3}{8}$ unc.; *alæ*, $2\frac{3}{4}$; *caudæ*, $1\frac{5}{8}$; *tarsi*, $\frac{7}{8}$; *rostri*, $\frac{5}{8}$; altitud. *rostri*, $\frac{3}{8}$.

CAMARHYNCHUS (subgenus).

CAMARHYNCHUS differt a genere *Geospizâ*, *rostro* debiliore, margine mandibulæ superioris minùs indentato; *culmine* minùs elevato in frontem et plus arcuato; *lateribus* tumidioribus; *mandibulâ* inferiore minus in genas tendente.

CAMARHYNCHUS PSITTACULA. (Spec. typ.) *Cam. summo capite corporeque superiore fuscis; alis caudâque obscurioribus; gutture corporeque inferiore, cinerascenti-albis, stramineo tinctis; rostro pallidè flavescenti-fusco; pedibus fuscis.*

Long. tot. $4\frac{3}{4}$ unc.; *alæ*, $2\frac{3}{4}$; *caudæ*, $1\frac{3}{4}$; *tarsi*, $\frac{7}{8}$; *rostri*, $\frac{1}{2}$; alt. *rostri*, $\frac{1}{2}$.

CAMARHYNCHUS CRASSIROSTRIS. (Fœm.) *Cam. corpore superiore intensè brunneo, singulis plumis cinerascenti-olivaceo marginatis; gutture pectoreque cinerascenti-olivaceis, singulis in medio plumis obscurioribus; abdomine, lateribus crissoque cinereis tinctis stramineo.*

Long. tot. $5\frac{1}{2}$ unc.; *alæ*, $3\frac{3}{4}$; *caudæ*, 2; *tarsi*, $1\frac{1}{8}$; *rostri*, $\frac{1}{2}$; alt. *rostri*, $\frac{1}{2}$.

CACTORNIS (subgenus.)

CACTORNIS differt a genere *Geospizâ rostro* elongato, acuto, compresso, longitudine altitudinem excellente; *mandibulæ* superioris margine vix indentato; *naribus* basalibus et vix tectis; *tarsis* brevioribus, *unguibus* majoribus et plus curvatis.

Cactornis scandens. (Spec. typ.) *Cact. intensè fuliginosa, crisso albo; rostro et pedibus nigrescenti-brunneis.*

Long. tot. 5 unc.; *rostri*, $\frac{3}{4}$; *alæ*, $2\frac{5}{8}$; *caudæ*, $1\frac{3}{4}$; *tarsi*, $\frac{3}{4}$.

Fœm., vel Mas jun. *Corpore superiore, gutture pectoreque intensè brunneis, singulis plumis pallidiorè marginatis; abdomine crissoque cinereis, stramineo tinctis; rostro pallidè fusco; pedibus nigrescenti-fuscis.*

Cactornis assimilis. (Mas jun. ?) *Cact. corpore suprà fuliginoso, nec non gutture abdomineque, illorum plumis, cinereo marginatis; rostro pallidè rufescenti-brunneo; pedibus nigrescenti-brunneis.*

Long. tot. $5\frac{1}{2}$ unc.; *rostri*, $\frac{3}{4}$; *alæ*, $2\frac{3}{4}$; *caudæ*, $1\frac{3}{4}$; *tarsi*, $\frac{3}{4}$.

Certhidea (subgenus).

Certhidea differt a genere *Geospizâ rostro* graciliore et acutiore; *naribus* basalibus et non tectis; *mandibulæ* superioris margine recto; *tarsis* longioribus et gracilioribus.

Certhidea olivacea. *Cert. summo capite, corpore superiore, alis caudâque olivaceo-brunneis; gutture et corpore infra cinereis; rostro pedibusque pallidè brunneis.*

Long. tot. 4 unc.; *rostri*, $\frac{1}{2}$; *alæ*, 2; *caudæ* $1\frac{1}{2}$; *tarsi*, $\frac{3}{4}$.

Of the groups here characterized, *Geospiza*, *Camarhynchus*, and *Cactornis*, belong to one type; but with regard to *Certhidea*, Mr. Gould remarked that although he confidently believed that it should also be referred to the same group with the three former, yet in its slighter form and weaker bill it has so much the appearance of a member of the *Sylviadæ*, that he would by no means insist upon the above view being adopted until the matter shall have been more fully investigated.

Mr. Gould deferred entering into any further details respecting the species under consideration until Mr. Darwin had furnished him with some information relating to their habits and manners.

Mr. Gould then resumed the exhibition of a portion of his own collection of *Birds* from Australia, and characterized the following new species:

Hemipodius melanogaster.

Hem. capite, auriculis, gulâ abdomineque nigris; lineâ super oculum oriente et ad nucham excurrente, plumis singulis maculâ ad apicem albâ; nuchæ plumis nigris et castaneis, maculis pluribus albis; dorso superiore castaneo-fusco, plumis singulis maculâ albâ, lineis duabus nigris cum fasciâ unicâ nigrâ apicali; scapulis, tectricibus primariis secundariisque rufo-brunneis, plumis singulis maculâ albâ nigro circumdatâ; remigibus primariis saturatè brunneis; femoribus et tectricibus superioribus et inferioribus caudæ brunneis nigro fasciatis et irroratis; rostro pallidè brunneo; pedibus carneis.

Long. tot. $8\frac{1}{2}$ unc.; *rostri*, 1; *alæ*, $4\frac{1}{2}$; *caudæ*, $1\frac{3}{4}$; *tarsi*, $1\frac{1}{8}$.
Habitat in Novâ Cambriâ Australi, vel Terrâ Van Diemen.

HEMIPODIUS MELANOTUS. *Hem. capite nigro, plumis apicibus brunneis; loro, lineâ supra-oculari, buccisque, pallidè flavo-brunneis; plumis buccarum apicibus extremis nigris; nuchâ lætè castaneo-rufâ, plumis singulis fasciâ latâ nigrâ centrali lineâque cervinâ ad latera externa; dorso superiore uropygio et tectricibus caudæ superioribus nigris, singulis plumis brunneo minutè variegatis, nec non maculis obscurè fulvis; caudæ tectricibus externè, et alarum tectricibus majoribus minoribusque stramineis, harum plumis singulis maculâ nigrâ centrali; rectricibus brunneis; gulâ albescenti; collo anticè pectoreque saturatè stramineis; lateribus colli et corporis pallidè stramineis, vittâ oblongâ transversâ nigrâ centrali; abdomine tectricibusque inferioribus caudæ flavo-albidis; rostro pedibusque fuscis.*
Long. tot. $6\frac{1}{2}$ unc.; *rostri*, $\frac{7}{8}$; *alæ*, $3\frac{1}{4}$; *caudæ*, $\frac{3}{4}$; *tarsi*, $\frac{3}{4}$.
Hab. In Terrâ Van Diemen.

COTURNIX PECTORALIS. *Cot. loro, auriculis gulâque fulvis; summo capite nuchâque saturatè brunneis, lineis duabus stramineis super oculum; lineâ stramineâ à rostro ad nucham excurrente; nuchâ brunneâ, plumis singulis lanceolatâ centrali stramineâ, et ad latera nigro guttatis; dorso tectricibusque superioribus caudæ fuscis, lineis angularibus nigris transversim notatis, strigâque lanceolatâ centrali stramineâ; alis fuscis lineis angularibus griseis et nigris transversim fasciatis; remigibus primariis cum maculâ pectorali nigris; lateribus pectoris brunneis; abdomine albo, plumis singulis lineâ centrali nigrâ; lateribus corporis saturatè brunneis, plumis singulis strigis tribus, quarum exteriores nigræ sunt, intermediâ albâ; rostro nigrescenti; pedibus fusco-carneis.*
Long. tot. $6\frac{3}{4}$ unc.; *rostri*, $\frac{1}{2}$; *alæ*, $3\frac{7}{8}$; *tarsi*, $\frac{7}{8}$.
Habitat in Novâ Cambriâ Australi.

Mr. Gould also exhibited a new and interesting species of *Parrot*, presented to the Society by Mr. John Leadbeater, and which he characterized, on behalf of the donor, as *Platycercus ignitus*.

PLATYCERCUS IGNITUS, Leadb.

Plat. capite summo auriculis, uropygio, pectore, corporeque subtus coccineis; buccis albis; plumis singulis dorsi ad medium nigris, marginibus coccineo et flavo intermixtis; alâ mediâ cæruleâ primariis quintis ad basin albis, apicibus brunneis; rectricibus quatuor intermediis albis coccineo pallide tinctis; rectricibus reliquis cæruleis ad basin albis, ad apicem albescentibus; rostro livido; pedibus saturate fuscis.
Long. tot. 12 unc.; *alæ*, 6; *caudæ*, $6\frac{3}{4}$; *tarsi*, $\frac{3}{4}$.
Hab. Australiâ.

January 24, 1837.

Rev. John Barlow, in the Chair.

Mr. Gould exhibited the Raptorial *Birds* included in the collection recently presented to the Society by Charles Darwin, Esq., and after some general observations upon the geographical distribution of the known species, proceeded to characterize the following as new to science:

Polyborus galapagoensis. *Pol. intensè fuscus; primariis nigris; secondariarum pogoniis internis albo et fusco transversim striatis; caudâ cinerascenti-fuscâ, transversim lineis angustis et frequentibus intensè fuscis notatâ; rostro obscure corneo; pedibus olivaceo-flavis.*

Long. tot. 20 unc.; *rostri*, $1\frac{1}{2}$; *alæ*, $14\frac{1}{2}$; *caudæ*, 9; *tarsi*, $3\frac{1}{4}$.

Fœm. jun. *Capite et corpore intensè stramineis fuscoque variegatis; illo in pectore et abdomine prævalente; primariis fusco-nigris; caudis rectricum, pogoniis externis cinerascenti-fuscis, internis pallide-rosaceis; utrisque lineis angustis et frequentibus fuscis transversim striatis, apicibus sordide albis; rostro nigrescenti-fusco; pedibus olivaceo-flavis.*

Long. tot. 22 unc.; *rostri*, $1\frac{3}{4}$; *alæ*, 17; *caudæ*, $10\frac{1}{2}$; *tarsi*, $3\frac{1}{2}$.

Obs. Were I not assured by Mr. Darwin that the habits of this bird strictly coincide with those of the *Caracara* (*Polyborus Brasiliensis*), its mode of flight and cry being precisely the same, I should have been induced to regard it as rather belonging to the genus *Buteo* than to *Polyborus*; but as I have satisfactorily ascertained by a close investigation, it forms a beautiful intervening link between these genera, as is evidenced by the scaling of the tarsi and the produced form of the beak; while its habits place it within the limits of the latter genus.

It is on the authority of Mr. Darwin also that I rely for the assurance of the two birds above described being the male and the female of the same species, so great is the difference between them both in size and colour.

Hab. In insulis Galapagorum.

Polyborus (Phalcobænus) albogularis. *Pol. fuscescenti-niger, marginibus plumarum inter scapulos fulvis; primariis secondariisque albo ad apicem notatis; gulâ pectore corporeque subtus albis; lateribus fusco sparsis; rostro livido; cerâ flavâ; tarsis olivaceis.*

Long. tot. 20 unc.; *rostri*, $1\frac{5}{8}$; *alæ*, $18\frac{1}{2}$; *caudæ*, 9; *tarsi*, 3.

Obs. I have some doubts as to whether this bird may not eventually prove to be a variety of *Phalcobænus montana*, D'Orb. The principal difference between this bird and the one described and figured by M. D'Orbigny is, that the throat and chest of the latter are brownish black, while the same parts in this bird are white.

Hab. Santa Cruz.

Buteo varius. *But. vertice corporeque supra intensè fuscis, plumis fulvo marginatis vel guttatis; primariis secondariisque cinereis, lineis fuscis frequentibus transversim striatis; caudâ cinereâ, lineis angustis et frequentibus fuscis transversim notatâ; singulis plumis flavescenti albo ad apicem notatis; gulâ fuliginosâ; pectore fulvo lineâ interruptâ nigrescente circumdatâ a gulâ tendente; abdomine imo lateribusque stramineo et rufescenti-fusco variegatis; femoribus crissoque stramineis lineis transversalibus anfractis rufescenti-fusco ornatis; rostro nigro; cerâ tarsisque olivaceis.*

Long. tot. $21\frac{1}{2}$; *alæ*, $16\frac{1}{2}$.

Obs. The fine individual above described was the only example of the species contained in Mr. Darwin's collection; and it is evidently in a state of change from youth to maturity.

Hab. Santa Cruz.

Circus megaspilus. *Circ. vertice corporeque supra intense fuscis, lineâ stramineâ a naribus supra oculos ad occiput tendente; hoc rufescenti-fusco, primariis intensè fuscis ad basin cinereis, lineis nigris cancellatis; tectricibus caudæ albis; rectricibus intermediis cinereis externis cinereo-stramineis; omnibus lineis latis fuscis transversim notatis; lineâ ultimâ latisimâ apice sordide stramineo; gulâ et pectore stramineis, fusco sparsis; corpore subtus stramineo; plumis pectoris et laterum striâ centrali fusco notatis; rostro nigro; cerâ tarsisque flavis.*

Long. tot. 21 unc.; *rostri*, $1\frac{1}{2}$; *alæ*, 17; *caudæ*, $10\frac{1}{2}$; *tarsi*, $3\frac{1}{2}$.

Buteo ventralis. *But. vertice corporeque intense et nitide-fuscis, plumis dorsalibus purpurescentibus; primariis nigris; caudâ fuscâ lineis frequentibus obscurioribus, cancellatâ ad apicem sordide albâ; gulâ abdomine medio crissoque stramineo albis; lateribus pectoris corporisque fasciâque abdominali necnon femoribus flavescente-albis fusco notatis, notis in femoribus rufescentibus; tarsis per mediam partem antice plumosis, rostro nigro; cerâ tarsisque flavis.*

Long. tot. $21\frac{1}{2}$ unc.; *alæ*, $15\frac{1}{2}$; *rostri*, $9\frac{1}{2}$; *tarsi*, $3\frac{1}{2}$.

Otus (Brachyotus) galapagoensis. *Ot. fasciâ circa oculos fuliginosâ; strigâ superciliari plumis nares tangentibus et circa angulum oris, gulâ et disci fascialis margine albis; vertice corporeque supra intense stramineo fuscoque variegatis; primariis intense fuscis ad apicem, stramineo fasciatis ad basin; corpore subtus stramineo notis irregularibus fasciisque fuscis ornato; femoribus tarsisque plumosis rufescenti-stramineis; rostro et unguibus nigris.*

Long. tot. $13\frac{1}{2}$; *rostri*, 1; *alæ*, 11; *caudæ*, 6; *tarsi*, 2.

Obs. This species belongs to that section of the horned owls which comprehends the short-eared owl of England, and numerous other nearly allied species which are distributed universally over the globe, from all of which it may be distinguished by its smaller size and darker colouring. I am led to regard the members of this section as possessing characters of sufficient value to justify their being separated into a distinct genus, for which I propose the name of *Brachyotus*.

Mr. Martin described a species of *Fox* brought by Mr. Darwin from the island of Chiloe, respecting which he made the following remarks:—

The animal in question is probably identical with the *Culpeu* of Molina, especially as the account of its surprise at the presence of man, uncombined with any exertions to escape, as given by Mr. Darwin, agree with the observations of Molina. Still, however, the description of the *Culpeu* is too vague to render its identity with the present species a matter of certainty; and as I regard it to be the best and safest plan in all doubtful cases to set the matter in such a light as to prevent if possible any confusion, I shall here describe and name the animal, for which I propose the specific title *fulvipes*.

VULPES FULVIPES. *Vulp. robustus, artubus brevibus caudâ mediocri; corporis colore cano nigroque commixtis; hoc in dorso prævalente: capite sordidè fulvescente, cano irrorato, rostro fusco, labiis superioribus ad marginem sordide albis, mento fuliginoso, auribus externe castaneis; brachiis interne, tarsis digitisque fulvis; genis, gulâ, corporeque subtus, sordide albis; caudâ vellere breviore per tertiam partem indutâ, apice floccoso et fuliginoso.*

	ft.	in.	lin.
Longitudo corporis ad basin caudæ......	2	0	0
———— caudæ ad apicem velleris	0	9	0
———— rostri ad oculos	0	1	4
———— aurium	0	1	3
———— tarserum ad plantam digitalem	0	2	4
Altitudo apud humeros	0	10	0

Hab. Chiloe.

The *Vulpes fulvipes* is remarkable for the stout form of the body and the shortness of the limbs: the tail is rather short, and covered with hair of moderate length, except at the extremity, where it forms an abrupt and full tuft tipped with sooty black. The general fur is full, moderately deep, and rather harsh; on the body the colour is hoary mixed with black, the latter being more decided down the top of the back; the head inclines to fulvous, grizzled with hoary. The muzzle and skin are dusky, but the edges of the lips are white; the ears are rather short and of a chestnut brown; the outside of the fore limbs is dusky black freckled with fulvous inner side and toes pale fulvous brown; a dark mark approaching black above the tarsal joint; tarsi and toes fulvous brown. Under parts dirty white. Hair of two sorts, viz. those which constitute a soft under vest of a dusky greyish brown, through which pass long hairs of a dusky brown at the base with a black band, followed by a yellowish white band and tipped with black; a mixture producing the grizzled character of the fur of the body.

The Secretary read a communication from J. O. Westwood, Esq., describing several new species of Insects belonging to the family of the *Sacred Beetles*.

After noticing the interest which is attached to the family of the *Scarabæidæ*, not only on account of their curious habits, whence they were raised to the rank of objects of worship by the Egyptians, but also from having led to the publication of the *Horæ Entomologicæ* by Mr. MacLeay, in which an analysis of the Linnæan *Scarabæi* was given; the author gives an abstract of the classifications of this family respectively proposed by MacLeay, Latreille, (*Règne An.*, 2nd edition), and Serville and Saint Fargeau (*Encyclop. Méthod.* vol. x.), with a notice of the genera more recently proposed by various authors referrible or allied thereto. From a review of these distributions in conjunction with the natural economy of the insects of which the family is composed, the author is disposed to consider the family as divisible into two natural groups, those with long hind legs and those which have their legs short and conical; and also that the characters of the genus *Scarabæus* and subgenus *Heliocantharus* must either be modified so as to exclude the species which are destitute of a distinct spur at the extremity of the intermediate *tibiæ*, or that the *Ateuchus Adamastor* (*Enc. Méth.*) and the insects subsequently described must be regarded as referrible to the genus *Scarabæus*, although possessing two spurs at the extremity of the intermediate *tibiæ*, agreeing in all other material respects with the true *Scarabæi*.

The following is an abstract of the characters of the insects, the descriptions of which were accompanied by figures exhibiting the various essential organs in detail, and by observations upon the structural peculiarities of the two groups.

Typus SCELIAGES.

Corpus latum, subdepressum. *Caput* subtrigonum clypeo trilobato, lobo intermedio valdè emarginato. *Antennæ* clavâ subglobosâ, articulo 7mo magno infernè producto, articulos duos terminales in sinu ejus includente, ultimo 8vo minori. *Palpi* maxillares breves subfiliformes, labiales abbreviati 3-articulati, articulis magnitudine decrescentibus. *Thorax* abdomine paullo latior. *Tibiæ* anticæ magnæ, pone medium intus curvatæ. *Tibiæ* intermediæ bicalcaratæ.

SCELIAGES IOPAS.

Ater nitidus lævis, clypei dentibus intermediis duobus obtusis subelevatis, capite anticè punctatissimo, thorace lævissimo, elytris punctis nonnullis minutissimis irregularibus striisque sex longitudinalibus simplicibus fere obliteratis.

Long. corp. 10 lin. Africa Austral. Mus. Hope et P. Walker.

Typus Anomiopsis.

Pedes elongati, *tibiæ* intermediæ curvatæ bicalcaratæ, calcaribus mobilibus interno, elongato acuto, externo breviori spatuliformi, *tarsi* pedum anticorum obsoleti, quatuor posticorum depressi setosi, unguibus nullis; *palpi* maxillares filiformibus, articulis tribus ultimis longitudine fere æqualibus; labiales difformes, articulo 2do maximo transverso-ovato, ultimo minutissimo internè et obliquè inserto.

Aniomiopsis Dioscorides.

Ater, nitidus punctatissimus; elytris 6-*punctato-striatis; capitis thoracisque lateribus, femoribus anticis tarsisque quatuor posticis longè rufo-hirtis.*

Long. corp. 13 lin. Mus. P. Walker et C. Darwin.
Hab. Patagoniâ.

Anomiopsis Sterquilinus.

Ater, nitidus punctatissimus, convexus, capite cornu elevato verticali, thorace impressione centrali valdè irregulari, elytris semicircularibus striis sex simplicibus in singulo, capite thorace tarsisque breviter rufo-hirtis.

Long. corp. 10 lin. Habitat. —? Mus. P. Walker.

Mr. Martin called the attention of the meeting to a specimen of the *Dasypus hybridus*, in the collection presented to the Society by C. Darwin, Esq. This animal, the *tatou mulet* of Azara, has been characterised in all systematic works, as closely related to *Dasypus Peba*, and as having large ears; whereas the ears are much smaller than in *D. Peba*, and but little larger than those of *D. minutus*. In reference to this species, which he at first was unable satisfactorily to identify, he observed that the vague and unsatisfactory account given in systematic works would, he conceived, justify him in laying before the meeting a more complete and definite description of the animal than he had been able to meet with, the want of which he had himself experienced, which he thus ventured to supply.

In *Dasypus hybridus* the contour of the body is short and stout, the limbs are robust, and the muzzle is shorter in proportion than in *D. Peba*. The admeasurements of the specimen in question are as follows:

	inch.	lin.
Length from the tip of the nose over the back to the root of the tail	13	3
——— from the top of the frontal plate to the end of the nose	3	0
——— from the anterior angle of eye to end of nose	1	7
——— from the same to base of ear	1	5
——— of ears	0	10
Extent of shoulder plate, from back of neck to its posterior edge	2	10

	inch.	lin.
Haunch plate, from its anterior to its posterior margin above the tail....	2	10
Length of tail	6	9
Circumference of its basal ring, from which it rapidly tapers to a slender point	4	0

Number of dorsal bands 7.

In a small specimen of *D. Peba,* measuring from nose to root of tail 1 foot 2½ inches, the ears measure 1¼ inch in length; and in a somewhat larger specimen (from nose to root of tail, 1 foot 3 inches) 1⅜th inch.

In the smaller specimen of *D. Peba* the extent of the shoulder plate is 2¾ inches,—of the haunch plate 4 inches.

The length of the head 3½ inches, and the distance from the anterior angle of the eye to the end of the nose, 2⅛ inches.

Tail imperfect, but much longer than in *D. hybridus.*

Between *D. hybridus* and *D. Peba,* independently of the differences in the proportion of the ears and length of snout, the characters exhibited by the *scutellæ* of the plates are very distinct. In *D. hybridus* the *scutellæ* of the helmet are of moderate size, those in the centre of the upper part being elongated, and many sub-triangular, the rest occupying the space between the eyes and downwards are of an irregular figure, some nearly square, others pentagonal and hexagonal. In *D. Peba* the *scutellæ* are not only much larger, but of a more definite figure, being mostly hexagonal, with sides of unequal length.

In *D. hybridus* the *scutellæ* of the shoulder plate consist of elevated oval tubercles in transverse rows, the intervals being filled with smaller, very irregular, and less elevated granuli. The same observation applies to the haunch plate, in which the elevated oval *scutellæ* are remarkably distant and large, while somewhat smaller and flatter *scutellæ* form a rosette round each. In the *D. Peba* the larger *scutellæ* of this plate are round, and are encircled by others of very small size.

In *D. hybridus* the ears are delicately granulated,—in *D. Peba* coarsely.

As respects the *Das. minutus* there can be no possibility of confounding it with the *D. hybridus.*

Mr. James Reid exhibited to the Meeting, and characterized as new, under the name of *Obscurus,* a dark-coloured monkey, from the Society's collection, belonging to the genus *Semnopithecus.* The locality of the particular specimen before the Meeting was unknown.

February 14th, 1837.

William Brown Scott, Esq., in the Chair.

A letter was read from M. Julien Desjardins, a corresponding member of the Zoological Society, dated from the Mauritius, 15th July, 1836. The letter was accompanied by two copies of a memoir on the late Charles Telfair, Esq., President and Founder of the Natural History Society of that island. The memoir was written by M. Desjardins.

A letter dated Capetown, July 5th, 1836, from the Rev. James Adamson, a corresponding member, was read; the letter acknowledged the receipt of the printed Proceedings and Transactions of the Society, with thanks from the South African Literary and Scientific Institution.

A letter was also read from C. R. Read, Esq., a corresponding member, dated Singapore, September 2nd, 1836, announcing a present of 56 skins of birds, and the skin of an alligator of large size, which have been received.

At the request of the Chairman, Mr. Waterhouse brought under the notice of the Meeting numerous species of the genus *Mus*, forming part of the collection presented to this Society by Charles Darwin, Esq., a Corresponding Member. The specimens placed on the table had been collected at various parts of the Southern Coast of South America, viz. Coquimbo, Valparaiso, Port Desire, Maldonado, Bahia Blanca, &c.

Most of these numerous species were considered by Mr. Waterhouse as hitherto undescribed, and drawings were exhibited by him illustrative of the modifications observable in their dentition.

The specific characters of the species above referred to are as follows:

Mus TUMIDUS. *M. brunneus, nigro lavatus, rostro ad apicem, labiis, mento, gulâ, pectore, abdomineque albis, naso suprà nigrescente; mystacibus atris; capite magno; auribus mediocribus rotundatis, pilis nigris et griseis intermixtis, vestitis; corpore crasso; caudâ capite corporeque breviore, pilis nigricantibus, subtùs albescentibus prope basin, vestitâ; artubus pedibusque grisescentibus; vellere longo, molli; pilis dorsi ochraceo annulatis apicibus nigris; pilis laterum apicibus fuscescenti-griseis; pilis omnibus ad basin plumbeis; unguibus longis.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin....	6	9
——— *caudæ*	5	4
——— ab apice rostri ad marginem oculi	0	9
——— ab apice rostri ad basin auris	1	8
——— *tarsi digitorumque*...............	1	6
——— *auris*	0	7

Hab. Maldonado.

30 2 28 2.

Mus nasutus. *M. suprà obscurè flavescenti-fuscus, ad latera fulvescens; subtùs obscurè fulvo tinctus: pedibus pilis obscurè fuscis tectis; unguibus longis; auribus mediocribus; caudâ corpore breviore, suprà fuscâ, subtùs sordidè albâ: rhinario producto: vellere longo et molli.*

	unc.	lin.
Longitudo ab apice rostri usque ad caudæ basin	5	2
———— *caudæ*	2	8
———— ab apice rostri ad marginem oculi. .	0	7¾
———— ab apice rostri ad basin auris	1	3
———— *tarsi digitorumque*.	1	0½
———— *auris*	0	5

Hab. Maldonado.

Mus obscurus. *M. suprà fusco-nigrescens, subtus flavescens; pedibus obscurè fuscis; unguibus longiusculis; auribus mediocribus; caudâ corpore breviore, supra nigrescente, subtus sordidè albâ: vellere mediocri, molli.*

	unc.	lin.
Longitudo ab apice rostri usque ad caudæ basin	5	3
———— *caudæ*	2	7
———— ab apice rostri ad marginem oculi. .	0	6
———— ab apice rostri ad basin auris	1	2½
———— *tarsi digitorumque*.	0	11½
———— *auris*	0	4

Hab. Maldonado.

Mus longipilis. *M. suprà obscurè griseus, flavo lavatus; subtus griseus; pedibus fuscis, unguibus longiusculis, auribus mediocribus; caudâ corpore breviore, suprà nigrescente, subtùs fuscescente; rhinario sub-producto: vellere longissimo, molli.*

	unc.	lin.
Longitudo ab apice rostri usque ad caudæ basin	5	4
———— *caudæ*	3	1
———— ab apice rostri ad marginem oculi. .	0	6½
———— ab apice rostri ad basin auris	1	2
———— *tarsi digitorumque*.	1	0½
———— *auris*	0	6½

Hab. Coquimbo.

Mus olivaceus. *M. corpore suprà subolivaceo, subtùs cinerescente; auribus mediocribus, rotundatis, pilis parvulis fuscescentibus obsitis; caudâ corpore breviore, pilosâ, at squamas ostendente, suprà fuscâ subtùs albescente; pedibus pilis fuscescentibus tectis.*

	unc.	lin.
Longitudo ab apice rostri usque ad caudæ basin	5	1
———— *caudæ*	2	8
———— ab apice rostri ad marginem oculi.	0	6
———— ab apice rostri ad basin auris	1	2
———— *tarsi digitorumque*.	0	11
———— *auris*	0	5
Latitudo *auris*	0	5½

Hujus speciei pili corporis omnes longi sunt, laxi, mollesque, plumbeo colore, sed in dorso ad apicem flavescente; abdomine, albescentes; pili longiores dorsales apicem versus nigricantes, cinerascentes desinunt: mystaces pilos tenues ostendunt cinereo colore, sed ad basin nigrescentes.

Hab. Valparaiso.

Mus micropus. *M. suprà cinerascenti-fuscus flavo lavatus; subtùs obscurè flavo tinctus; pedibus pilis sordidè albis tectis, antipedibus parvulis; auribus mediocribus; caudâ, quoad longitudinem, corpus ferè æquante, supra fuscâ, subtùs sordidè albâ.*

	unc.	lin.
Longitudo ab apice rostri usque ad caudæ basin	6	0
——— *caudæ*	3	8
——— ab apice rostri ad marginem oculi	0	$7\frac{1}{2}$
——— ab apice rostri ad basin auris	1	4
——— *tarsi digitorumque*	1	$0\frac{3}{4}$
——— *auris*	0	6

Hab. Santa Cruz.

Mus brachiotis. *M. suprà obscurè fuscus, subtùs obscurè griseo tinctus; pedibus griseo-fuscis; auribus parvulis; caudâ, quoad longitudinem, corpus ferè æquante: vellere longo et molli.*

	unc.	lin.
Longitudo ab apice rostri usque ad caudæ basin	4	9
——— *caudæ*	2	8
——— ab apice rostri ad marginem oculi	0	$6\frac{1}{4}$
——— ab apice rostri ad basin auris	1	2
——— *tarsi digitorumque*	0	11
——— *auris*	0	3

Hab. in insulâ parvulâ apud Midship Bay, Chonos Archipelago.

Mus xanthorhinus. *M. suprà griseus, subtùs albus, rhinario flavo; auribus parvulis, intùs pilis flavis obsitis; mystacibus longis, canis, ad basin nigrescentibus: caudâ corpore breviore, suprà fuscâ, ad latera flavescente, subtùs sordidè albâ: pedibus anticis tarsisque flavis, digitis albis: vellere longo, molli.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin	4	0
——— *caudæ*	2	0
——— ab apice rostri ad marginem oculi	0	$5\frac{3}{4}$
——— ab apice rostri ad basin auris	1	$0\frac{3}{4}$
——— *tarsi digitorumque*	0	9
——— *auris*	0	$3\frac{3}{4}$

Statura mure musculo paulò major.

Hab. Santa Cruz.

Mus canescens. *M. suprà canescens, subtùs albus pallidè flavo lavatus; oculis flavido cinctis; auribus parvulis, pilis pallidè flavis et plumbeis obsitis; mystacibus mediocribus, canis, ad basin nigricantibus; caudâ vix corpore breviore, suprà fusco-nigrâ,* *subtùs sordidè albâ; pedibus canescentibus; vellere mediocri, molli, suprà pilis pallidè et sordidè flavis, nonnullis cinerascentibus intermixtis.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin....	3	4
———— *caudæ*	2	10
———— ab apice rostri ad marginem oculi..	0	5½
———— ab apice rostri ad basin auris	0	11¼
———— *tarsi digitorumque*.............	0	9
———— *auris*......................	0	3¾

Staturâ muri musculo appropinquat.

Hab. Port Desire.

MUS ARENICOLA. *M. suprà fuscus, subtùs cinerascenti-albus, pallidè flavo tinctus; auribus mediocribus rotundatis, pilis flavis fuscisque obsitis: caudâ quod ad longitudinem pertinet corpus æquante, pilis subvestitâ, squamisque apparentibus, suprà fuscâ, infrà albescente; pedibus obscurè albis. Vellere longo, molli; pilis ad bases plumbeis, illis capitis, dorsi, laterumque apicem versus sordidè flavo et fusco-nigrescente variegatis; mento, gulâ, pectore, abdomineque, pilis ad apicem flavo-albidis; mystacibus plenis, brevibus tenerrimis ad basin fuscescentibus, ad apicem grisescenti-albis.*

	unc.	lin.
Longitudo ab apice rostri usque ad caudæ basin	4	3
———— *caudæ*.......................	2	9
———— ab apice rostri ad marginem oculi..	0	5¾
———— ab apice rostri ad basin auris	1	0
———— *tarsi digitorumque*.............	0	10
———— *auris*	0	4½

Hab. Maldonado.

MUS BIMACULATUS. *M. vellere pallidè ochraceo, pilis nigricantibus adsperso, his ad latera rarioribus; rostri lateribus, notâ magnâ pone aurem utramque, corporeque subtùs niveis: mystacibus albis, ad basin nigrescentibus; auribus majusculis, pilis flavis atque albis intermixtis obsitis: caudâ, quoad longitudinem, corpus ferè æquante, carneâ, pilis albis brevissimis obsitâ; artubus albis; pedibus pilis albis sparsim tectis; tarsis ad calcem pilis argenteo-candidis obsitis.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin....	3	1
———— *caudæ*	1	11
———— ab apice rostri ad marginem oculi.	0	4½
———— ab apice rostri ad auris basin	0	8¾
———— *tarsi digitorumque*.............	0	8
———— *auris*......................	0	4½

Hæc species mure musculo minor; auribus paululùm grandioribus ratione ad totam magnitudinem habitâ; pili gulæ, pectoris abdominisque albi sunt usque ad radices.

Hab. Maldonado.

Mus elegans. *M. suprà flavus, vellere pilis fuscescentibus adsperso, his ad latera et prope oculos, rarioribus: pilis pone aurem utramque, labiis, corpore subtùs, pedibusque niveis: auribus magnis, intùs pilis flavis, externè, ad partem anteriorem fuscis obsitis: mystacibus nigrescentibus, ad apicem albescentibus; caudâ capite corporeque paulo longiore, pilis albis, suprà fuscescentibus, obsitâ: tarsis longis, ad calcem pilis albis tectis.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin....	3	7
———— *caudæ*	3	9
———— ab apice rostri ad marginem oculi.	0	6
———— ab apice rostri ad basin auris	1	0
———— *tarsi digitorumque*.............	0	10
———— *auris*..........................	0	6

Hæc species staturâ muri musculo appropinquat. Vellus in gulâ usque ad radicem album, in abdomine pallidè cinereum ad basin.

Hab. Bahia Blanca.

Mus gracilipes. *M. suprà fuscus flavo-lavatus; hoc colore apud latera et in artubus lætiore; pilis pone aurem utramque, labiis, corporeque subtùs, albis: pedibus parvulis, gracilibus, carneis, supra et ad calcem pilis albis tectis: caudâ gracili, carneâ, pilis albis instructâ: auribus majusculis, pilis flavescentibus obsitis: vellere mediocri et molli, pilis omnibus ad basin plumbeis: mystacibus nigrescentibus ad apicem albescentibus; nonnullis omninò albis.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin	2	10
———— *caudæ*	1	7
———— ab apice rostri ad marginem oculi.	0	$4\frac{1}{3}$
———— ab apice rostri ad basin auris	0	$8\frac{1}{4}$
———— *tarsi digitorumque*.............	0	$6\frac{1}{2}$
———— *auris*..........................	0	$4\frac{1}{4}$

Hab. Bahia Blanca.

Mus flavescens. *M. suprà colore cinnamomeo, lateribus capitis, corporisque, æque ac pectore, auratis; gulâ abdomineque flavescenti-albis: pedibus albis: auribus mediocribus rotundatis, pilis flavis obsitis; illis ad marginem superiorem extrinsecùs intensè fuscis; caudâ corpore capiteque longiore, gracili, suprà fuscâ, subtùs sordidè albâ.*

	unc.	lin.
Longitudo ab apice rostri usque ad caudæ basin	3	9
———— *caudæ*	4	$1\frac{1}{2}$
———— ab apice rostri ad marginem oculi.	0	$5\frac{1}{2}$
———— ab apice rostri ad basin auris	1	0
———— *tarsi digitorumque*.............	1	$0\frac{1}{2}$
———— *auris*..........................	0	$4\frac{1}{2}$

Hab. Maldonado.

Mus brevirostris. *M. supra fuscus fulvo lavatus; ad latera flavescens, subtùs sordidè ochraceus; auribus magnis, pilis indi-*

stinctè obsitis, illis internis auratis; caudâ capitem corpusque ferè æquante, pilis parcè tectâ; suprà obscurè fuscâ, subtùs pallidè fuscâ; pedibus fuscescentibus, digitis albicantibus; mystacibus fusco-nigris: vellere brevi, molli; capite parvulo, brevi.

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin ..	3	2
——— *caudæ*	2	9
——— ab apice rostri ad marginem oculi .	0	$3\frac{1}{4}$
——— ab apice rostri ad basin auris	0	7
——— *tarsi digitorumque*.............	0	9
——— *auris*	0	$4\frac{3}{4}$

Hæc species muri musculo appropinquat; differt attamen capite minore, (ratione ad magnitudinem habitâ,) rostro breviore, tarsisque longioribus.

Hab. Maldonado.

Mus Maurus. *M. pilis subrigidis, suprà purpurascenti-nigris, subtùs fusco-plumbeis; capite fusco-nigro, rostro fusco; auribus parvulis sordidè albis, pilis minutissimis pallidè fuscis obsitis: caudâ corpus ferè æquante, nigrâ, pilis sparsè vestitâ: pedibus fuscis; mystacibus fusco-nigris, ad apicem grisescentibus.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin ..	11	3
——— *caudæ*	7	6
——— ab apice rostri ad marginem oculi.	1	0
——— ab apice rostri ad basin auris	2	2
——— *tarsi digitorumque*.............	1	8
——— *auris*	0	$6\frac{1}{4}$

Hæc species colore muri ratto appropinquat, at purpurascenti-fusco tincta. Quoad staturam murem decumanum pergrandem æquat; vellus quoad texturam ferè est ut in mure decumano; et ad basin plumbeum; pilis albis in dorso lateribusque intersparsis.

Hab. Maldonado.

"Though in the foregoing description I have retained the generic title *Mus*, I have here to state that the above species naturally divide themselves into several subordinate groups, the characters of which are sufficiently evident, not only between themselves, but also between each group and that to which the term *Mus* ought, I conceive, to be restricted, and of which our common mouse (*Mus musculus*) may be regarded as the type. To these groups I shall here assign subgeneric titles, and at the same time point out their chief distinguishing characters without entering into any minute details respecting them, as I shall shortly have an opportunity of illustrating my views by means of drawings both of the teeth and of the animals, without which it is impossible to convey a clear idea of the subject."

Subgenus 1. SCAPTEROMYS*.

Molars with enamel deeply indented in the crown. In the front molar of the lower jaw the enamel is indented twice on the outer

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* *Scapteromys*, from Σκαπτης, a digger, and Μυς.

margin and three times on the inner; in the second molar the enamel is indented once on the outer margin and twice on the inner; and in the last molar once on the outer, and twice on the inner. Fur long and soft. Tail moderate, well clothed with hair. Claws long, but slightly curved and formed for burrowing. Fore-feet moderately large. Thumb furnished with a distinct claw. Ears moderate, well clothed with hairs.

Species *Mus* (*Scapteromys*) *tumidus.*

Subgenus 2. OXYMYCTERUS *.

Molars with the folds of enamel penetrating deeply into the body of the tooth. Front molar of the lower jaw with three indentations on the inner side and two on the outer; second molar with two on the outer side and the same number on the inner; the last molar with one indentation of the enamel on each side. Fur long and soft. Claws long, but slightly curved, and formed for burrowing. A distinct claw on the thumb. Tail short, moderately furnished with hair. Nose much elongated and pointed.

Species *Mus* (*Oxymycterus*) *nasutus.*

Subgenus 3. ABROTHRIX †.

Folds of enamel penetrating deeply into the sides of the molars. The front molar of the lower jaw has three folds of enamel on the inner side and two on the outer; the second molar has two on the inner side and one on the outer; and the last molar has one on each side. Fur long and soft. Tail short, well furnished with hair. Thumb with a short rounded nail. Ears well furnished with hair.

Type *Mus* (*Abrothrix*) *longipilis.*
Species 2 *Mus* (*Ab.*) *obscurus.*
——— 3 ———— *olivaceus.*
——— 4 ———— *micropus.*
——— 5 ———— *brachyotis.*
——— 6 ———— *xanthorhinus.*
——— 7 ———— *canescens.*
——— 8 ———— *arenicola.*

In general appearance these animals resemble *Arvicolæ.*

Subgenus 4. CALOMYS ‡.

Fur moderate, soft. *Tarsus* almost entirely clothed beneath with hair. Front molar with three indentations of enamel on the inner side and two on the outer; second molar with two on the inner and two on the outer; and the last molar with one on each side.

Type *Mus* (*Calomys*) *bimaculatus.*
Species 2 *Mus* (*Cal.*) *elegans.*
——— 3 ———— *gracilipes.*

Mus maurus and *M. brevirostris* I regard as belonging to the restricted genus *Mus*. In *Mus flavescens* the dentition differs *slightly* from that of the ordinary mice.

[*] *Oxymycterus*, from Οξυς, sharp, and Μυκτηϱ, nose.

[†] *Abrothrix*, from Ἁβρος, soft or delicate, and Θριξ, hair.

[‡] *Calomys*, from Καλος, beautiful, and Μυς.

Mr. Gould exhibited, in continuation, the ***Fissirostral Birds*** of Mr. Darwin's collection, recently presented to the Society, and characterized from among them the following new species:

Caprimulgus bifasciatus. *Cap. nigro, fusco, et fulvescente ornatus; caudâ albo bifasciatâ, fasciâ terminali lato: primâ angustâ; primariis nigrescentibus fasciâ angustâ albâ ad medium: alis spuriis maculâ albâ notatis; gutture lunulâ albâ; secondariis tectricibusque alarum maculâ fulvescente ad apicem; crisso pallidè rufescente; rostro pedibusque fuscis.*

Long. tot. unc., $9\frac{3}{4}$; *alæ*, $6\frac{1}{2}$; *caudæ*, 5; *tarsi*, $\frac{3}{4}$.

Caprimulgus parvulus. *Cap. intensè fuscus, guttis minutis cinereis ornatus; vittâ rufâ cervicem cingente; gutture scapularibusque ad marginem, secondariis ad apicem stramineis; pectore et abdomine lineis fuscis transversis; primariis nigrescentibus, tribus fasciis inæqualibus pallidè rufescentibus; caudâ fasciis pallidè fulvescentibus et fuscis ornatâ.*

Long. tot. unc., $7\frac{1}{2}$; *alæ*, 5; *caudæ*, 4; *tarsi*, $\frac{5}{8}$.

Hirundo frontalis. *Hir. vertice plumis auricularibus dorso et lunulâ pectorali nitidè cæruleo viridescentibus, notâ albâ super nares, gulâ corporeque subtus albicantibus, crisso niveo, alis caudâque fuscis viridi tinctis, rostro nigro, pedibus intensè fuscis.*

Long. tot $4\frac{3}{4}$ unc. *alæ*, $4\frac{3}{4}$; *caudæ*, 2; *tarsi*, $\frac{1}{2}$.

Hab. Montevideo.

Hirundo concolor. *Hir. nitidè cærulescenti niger.*

Long. tot. $5\frac{3}{4}$ unc. *alæ*, 5; *caudæ*, $2\frac{3}{4}$; *tarsi*, $\frac{1}{2}$.

Hab. in insulis Galapagorum.

Halcyon erythrorhynchus. *Halc. vertice plumis auricularibus, et nuchâ fuscescenti-cinereis, gulâ pectore et abdomine medio albis, lateribus abdomine imo crissoque castaneis, alis humerisque nigris secondariis ad marginem dorso medio tectricibusque caudæ metallicè viridibus, cæruleo tinctis, caudâ cæruleâ superne, subtus fuscâ, rostro pedibusque rubris.*

Long. tot. $7\frac{3}{4}$ unc.; *rost.*, 2; *alæ*, $3\frac{3}{4}$; *caudæ*, $2\frac{1}{2}$; *tarsi*, $\frac{1}{2}$.

Hab. in insulâ St. Iago.

February 28th, 1837.

The Rev. John Barlow, in the Chair.

The following notice by T. C. Eyton, Esq. of some osteological peculiarities in different skeletons of the genus *Sus* was read.

"Having during the last year prepared the skeleton of a male *Pig* of the pure Chinese breed, brought over by Lord Northampton, I was surprised to find that a very great difference existed in the number of the vertebræ from that given in the "*Leçons d'Anatomie Comparée*," vol. i. Ed. 1835. pag. 182, under the head either of *Sanglier* or *Cochon Domestique*. A short time afterwards, through the kindness of Sir Rowland Hill, Bart., M.P., I prepared the skeleton of a female *Pig* from Africa; this also differed, as also does the English long-legged sort as it is commonly called.

"The following table will show the differences in the number of the vertebræ in each skeleton with those given in the work above quoted.

	English Male.	African Female.	Chinese Male.	Leçons d'Anat. Comp.	
				Sanglier.	Coch. dom.
Cerv.	7	7	7	7	7
Dors.	15	13	15	14	14
Lumb.	6	6	4	5	5
Sac.	5	5	4	4	4
Caud.	21	13	19	20	23
Total	55	44	49	50	53

It is possible that some of the caudal vertebræ may be missing.

"The Chinese *Pig* was imported into this country for the purpose of improving our native sorts, with which it breeds freely, and the offspring are again fruitful. I this winter saw a fine litter of *Pigs* by Sir Rowland Hill's African *Boar*, imported with the female I described, the mother of which was a common *Pig*; time will show whether they will again be fruitful.

"From what has been stated the result appears to me to be that either the above three *Pigs* must be considered as distinct species, and which, should the offspring of the two latter again produce young, would do away with the theory of Hunter, that the young of two distinct species are not fruitful, or we cannot consider osteological character a criterion of species.

"I have been induced to offer the above not with any desire of species-making, but of adding something towards the number of recorded facts by which the question what is a *species* must be answered."

A letter was read from Thomas Keir Short, Esq., dated Launceston, Van Diemen's Land, August 10th, 1836, containing some remarks upon the *Apteryx*, two living specimens of which had been seen by the writer. The general correctness of the description published by Mr. Yarrell of this bird is confirmed by the observations of Mr. Short, with the exception of its progressive powers, which are stated to be remarkably great. The natives employ two methods of capturing it; one by hunting it down with very swift dogs, the other by imitating its call at night, and when by this means the bird is decoyed within a short distance, it is suddenly exposed to a strong light, which so confuses it that it is then readily taken. The usual position is standing, with the head drawn back between the shoulders, and the bill pointing to the ground. The food is stated to be principally worms and insects, and these birds are strictly nocturnal in their habits, feeding only during the night. Mr. Short remarks, that he has not been able to learn the place in which the *Apteryx* builds its nest, or the number of eggs which it lays. In conclusion, he promises to use his utmost endeavours to procure specimens for the Society.

Mr. Gould resumed the exhibition of his collection of Australian Birds, as also several species, from the same country, forming portions of the collections of the United Service Museum, and of King's College, London. Among his own birds Mr. Gould characterized two new species of *Meliphagidæ*, constituting a subdivision of that family, including *Meliphaga tenuirostris* of authors. For this new group he proposed the generic title of *Acanthorhynchus*, and for the two new species the names of *A. superciliosus* and *A. dubius*.

Acanthorhynchus. (Gen. char.) *Rostrum* elongatum gracile et acutum; ad latera compressum; tomiis incurvatis; culmine acuto et elevato.

Nares basales elongatæ et operculo tectæ.

Lingua ut in Gen. *Meliphaga*.

Alæ mediocres et sub-rotundatæ, remigibus primis et quintis ferè æqualibus; tertiis et quartis intensè æqualibus et longissimis.

Cauda mediocris, et paululùm furcata.

Tarsi elongati, fortes; halluce digito medio longiore et robustiore; digito externo medium superante.

Ungues curvati.

Typus, Certhia tenuirostris, auct.

Acanthorhynchus superciliosus. *Ac. summo capite, corpore superiore, alis, caudæque rectricibus sex intermediis cinerascenti-fuscis, rectricibus reliquis nigris albo amplè terminatis; loro plumisque auricularibus nigrescenti-fuscis; gutture summo, genis lineâque superciliari albis; gutture colloque nitidè et pallidè castaneis; illius colore vittâ albâ infrà circumdato, cui vitta nigra accedit; abdomine crissoque pallidè cinerascenti-fuscis; rostro pedibusque nigris.*

Long. tot $5\frac{1}{4}$ unc. ; *rostri*, $1\frac{1}{8}$; *alæ*, $2\frac{1}{2}$; *caudæ*, $2\frac{1}{4}$: *tarsi*, $\frac{3}{4}$.
Hab. in terrâ Van Diemen.

ACANTHORHYNCHUS DUBIUS. *Ac. summo capite intensè cinerascenti-viridi ; loro, plumis auricularibus, lunulâ in utroque pectoris latere, rectricibusque caudæ sex intermediis nigrescenti-fuscis, rectricibus reliquis nigris ad apicem albis ; nuchâ obscurè rufâ ; secundariis, tectricibus alæ majoribus, et uropygio cinereis ; gulâ pectoreque cinerescenti-albis, illâ rufo tinctâ ; abdomine crissoque nitidè at pallidè castaneis ; rostro pedibusque nigris.*
Long. tot. $5\frac{1}{2}$ unc.; *rostri*, 1 ; *alæ*, $2\frac{3}{8}$; *caudæ*, $2\frac{1}{4}$; *tarsi*, $\frac{3}{4}$.

Obs. Although I have given the name of *dubius* to this species on account of its close resemblance to *Acanthorhynchus tenuirostris*, I have but little doubt that it will ultimately prove to be distinct.

Hab. in terrâ Van Diemen.

The following species, also in Mr. Gould's collection, were named and characterized :

PARDALOTUS AFFINIS. *Pard. fronte nigro ; vertice nigro, singulis plumis lineâ centrali albâ ; lineâ superciliari flavâ ad basin rostri oriente, cum lineâ albâ conjunctâ occiput versus tendente ; nuchâ dorsoque sordidè olivaceo-fuscis ; uropygio tectricibusque caudæ flavidè olivaceo-fuscis ; alis nigris, primariis notâ albâ apicali ornatis, plumâ tertiâ albescente ad marginem externum ; secundariis albo rufoque marginatis ; alâ spuriâ ad apicem flavâ ; caudæ rectricibus nigrescenti-fuscis transversim albo ad apicem notatis ; auriculis genisque cinerescentibus ; gulâ flavâ ; pectore abdomineque mediis pallidè flavis, albo intermixtis ; lateribus flavidè olivaceo-fuscis ; rostro nigro ; pedibus fuscis.*
Long. tot. $3\frac{1}{4}$ unc. ; *rostri*, $\frac{3}{8}$; *alæ*, $2\frac{5}{8}$; *caudæ*, $1\frac{1}{4}$; *tarsi*, $\frac{13}{16}$.

Obs. This species differs from *Pardalotus striatus* in having a larger bill, a longer wing, and a longer tarsus, and in the absence of the white margination of the five primaries ; the tips of the spurious wing in the present species is yellow, while in *Pardalotus striatus* the same part is scarlet. I am somewhat disposed to believe that the bird figured by Dr. Latham may be referable to this species, and not to the following.

Hab. In terrâ Van Diemen.

NANODES ELEGANS. Mas. *Nan. vittâ frontali purpureâ, suprà lineâ metallicè cœruleâ marginatâ ad auriculas tendente ; loro splendidè flavo ; capite, genis, dorso, tectricibusque caudæ olivaceo-viridibus aureo lavatis ; humeris cœruleis, primariis nigris, primis quatuor ad marginem viridescentibus ; secundariis alâque spuriâ nigris ; gulâ pectoreque viridescenti-flavis, hoc colore in flavum, abdomine crissoque transeunte ; abdomine centrali pallidè aurantiaco ; rectricibus caudæ duabus intermediis viridescenti-cœruleis, reliquis ad basin cœruleis, amplè flavo terminatis ; rostro pedibusque intensè fuscis.*

Fœm. vel Mas Junior *vittâ frontali caret, et colorem habet indistinctiorem.*

Long. tot. 9 unc.; *alæ,* 4$\frac{3}{8}$; *caudæ,* 5$\frac{1}{4}$; *tarsi,* $\frac{1}{2}$.

Hab. In terrâ Van Diemen?

PLATYCERCUS FLAVEOLUS. *Plat. fronte coccineo; buccis pallidè cœruleis; summo capite, nuchâ, et dorso, uropygio, tectricibus caudæ superioribus, corporeque infernè pallidè flavidis, plumis dorsi parteque inferiori tectricum alæ majorum centris nigris externè flavescentibus; alis mediis cyaneis; alâ spuriâ primariisque externè ad basin saturatè violaceis; reliquis primarium saturatè brunneis; rectricibus duabus intermediis caudæ ad basin viridescentibus, ad apicem cœruleis, reliquis rectricum ad basin exteriorem saturatè cœruleis, apicibus pallidioribus, plumis internè ferè per totam longitudinem brunneis, apicibus extremis albis; rostro livido; pedibus fuscis.*

Long. tot. 13$\frac{1}{4}$ unc.; *alæ,* 7; *caudæ,* 7$\frac{1}{2}$; *tarsi,* $\frac{3}{4}$.

Hab. in Novâ Cambriâ Australi.

HIMANTOPUS LEUCOCEPHALUS. *Him. albus; nuchâ, dorso, alisque nigris, nitore viridi; rostro nigro; pedibus rufis.*

Long. tot. 15 unc.; *rostri,* 2$\frac{1}{2}$; *alæ,* 8$\frac{1}{2}$; *caudæ,* 3; *tarsi ad primum articulum* 4, *spatii nudi super eum* 2$\frac{1}{2}$.

Obs. This is a well-known species, but has hitherto been confounded with the *Himantopus melanopterus,* under which title it has been described by various authors.

Hab. Australiâ et insulis Javâ, Sumatrâ.

Mr. Gould also characterized two new species of the genus *Sterna,* from the collection in King's College, and a species of *Cormorant* in the United Service Museum, and three species of the genus *Orpheus,* from the Galapagos, in the collection of Mr. Darwin.

STERNA POLIOCERCA. *Stern. fronte cinerascenti-albo in nigrum ad occiput mergente; gutture, collo anticè et posticè, corporeque subtùs albis; corpore suprà, alis, caudâque cinerascentibus; rostro flavo; pedibus nigris.*

Long. tot. 17$\frac{1}{2}$ unc.; *rostri,* 2$\frac{3}{4}$; *alæ,* 12$\frac{3}{4}$; *caudæ,* 7; *tarsi,* 1.

Hab. in terrâ Van Diemen.

STERNA MACROTARSA. *Stern. vertice et nuchâ nigris; corpore suprà primariisque argenteo-cinerascentibus; partibus reliquis corporis albis; rostro pedibusque nigris.*

Long. tot. 15 unc.; *rostri,* 2$\frac{1}{2}$; *alæ,* 12; *caudæ,* 5$\frac{1}{4}$; *tarsi,* 1$\frac{5}{8}$.

Hab. in terrâ Van Diemen.

PHALACROCORAX BREVIROSTRIS. *Phal. rostro flavo culmine ad basinque nigrescenti-fuscis; gutture plumis auricularibus genisque albis. Nuchâ pectore corporeque subtus cum caudâ nitidè*

nigris; dorsi alarumque plumis intensè cinereis, nigro marginatis, pedibus nigris.

Long. tot. 23 unc.; *rostri*, $2\frac{3}{8}$; *alæ*, $9\frac{1}{2}$; *caudæ*, $7\frac{1}{2}$; *tarsi*, $1\frac{1}{4}$.

ORPHEUS TRIFASCIATUS. *Orph. vertice, nuchâ, et dorso nigrescentibus; uropygio rufo pallidè lavato; alis nigrescentibus tectricibus notâ albescente terminali, fascias tres transversas facientibus rectricibus caudæ duabus intermediis nigrescentibus, reliquis ad apicem pallidioribus; plumis auricularibus strigâ superciliari, gulâ, et corpore subtùs albis, lateribus notis guttisque fuscis ornatis; rostro pedibusque nigris.*

Long. tot. $10\frac{5}{8}$ unc.; *rostri*, $1\frac{3}{8}$; *alæ*, 5; *caudæ*, $5\frac{1}{2}$; *tarsi*, $1\frac{3}{4}$.

ORPHEUS MELANOTIS. *Orph. vertice, nuchâ, dorsoque pallidè fuscis; plumis capitis et dorsi ad medium colore saturatiore; alis intensè fuscis singulis, plumis ad marginem pallidioribus, secondariis, tectricibusque majoribus notâ albâ terminali, fascias duas transversas facientibus; caudæ rectricibus nigrescenti-fuscis ad apicem albis, loro, plumisque auricularibus nigrescenti-fuscis; laterum plumis notâ fuscâ centrali, abdomine albo; rostro pedibusque nigris.*

Long. tot. $9\frac{1}{2}$ unc.; *rostri*, $1\frac{1}{4}$; *alæ*, $4\frac{1}{2}$; *caudæ*, $4\frac{1}{2}$; *tarsi*, $1\frac{3}{8}$.

ORPHEUS PARVULUS. *Orph. vertice, nuchâ caudâque intensè fuscis, hujus rectricibus ad apicem albo notatis; alis fuscis secondariis tectricibusque notâ albâ apicali fascias duas transversas facientibus; loro, plumisque auricularibus nigrescentibus, gulâ, colli lateribus pectore, et abdomine albescentibus; plumis laterum notis fuscis per medium longitudinaliter excurrentibus.*

Long. tot. $8\frac{1}{8}$ unc.; *rostri*, 1; *alæ*, $3\frac{5}{8}$; *caudæ*, $3\frac{3}{4}$; *tarsi*, $1\frac{1}{4}$.

Mr. Waterhouse resumed the exhibition of the small *Rodents*, belonging to the collection presented by Mr. Darwin to the Society. Among them were three species allied to the genus *Mus*, but offering some slight modification, not only in the external form, but in the structure of the teeth. They have the fur soft and silky; the head large, and the fore legs very small and delicate; the *tarsus* moderately long and bare beneath; in the number and proportion of the toes they agree with the true rats; the tail is moderately long, and more thickly clothed with hair than in the typical rats. The ears are large, and clothed with hair. Like the true rats, they have twelve rooted molars; the folds of enamel, however, penetrate more deeply into the body of each tooth, and enter in such a way that the crowns of the teeth are divided into transverse and somewhat lozenge-shaped lobes, or in some instances into lobes of a triangular form. In the front molar of the upper jaw the enamel enters the body of the tooth twice, both on the outer and inner sides; and in the second and posterior molars, both of the upper and under jaws, the enamel penetrates but once externally and internally in each. In the front molar of the lower jaw the enamel enters the body of the tooth three times internally, and twice externally.

As the above-mentioned characters, in Mr. Waterhouse's opinion, evidently indicated an aberrant form of the Muridæ, he suggested the propriety of constituting a subgenus under the name of Phyllotis* for the reception of the species.

They were characterized as follows:—

Mus (Phyllotis) Darwinii. *M. suprà pilis cinnamomeis et nigrescentibus intermixtis; ante oculos cinerascentibus; genis, lateribus corporis, et caudâ prope basin, fulvo-cinnamomeis; partibus inferioribus pedibusque albis; auribus permagnis, ferè nudis; caudâ caput corpusque ferè æquante, suprà fusco-nigricante, subtùs albâ.*

	unc.	lin.
Longitudo ab apice rostri usque ad caudæ basin	6	0
——— *caudæ*	4	9
——— ab apice rostri ad marginem oculi	0	8¼
——— ab apice rostri ad basin auris	1	4½
——— *tarsi digitorumque*	1	1½
——— auris	0	11¾
Auris latitudo	0	11¾

Hab. Coquimbo.

This little animal is remarkable for its large leaf-like ears.

Mus (Phyllotis) xanthopygus. *M. suprà pallidè brunneus flavo-lavatus, ad latera flavescens, subtùs albus; capite griscescente; natibus flavis; pedibus albis; auribus majusculis pilis albis et flavis intermixtis obsitis; caudâ longitudinem corporis ferè æquante, suprà nigricante; subtùs albâ; vellere longo et molli; pilis corporis omnibus ad basin plumbeis; mystacibus perlongis albescentibus, ad basin nigris.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin	5	3
——— *caudæ*	3	10
——— ab apice rostri ad marginem oculi	0	6¾
——— ab apice rostri ad basin auris	1	3
——— *tarsi digitorumque*	1	1
——— auris	0	7
Auris latitudo	0	6½

Hab. Santa Cruz.

Mus (Phyllotis) griseo-flavus. *M. suprà griseus flavo-lavatus, ad latera flavus, subtus albus; pedibus albis; auribus magnis et ferè nudis; caudâ caput corpusque ferè æquante, suprà fusco-nigricante, subtùs albâ; vellere longo, molli; pilis ad bases plumbeis.*

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* *Phyllotis*, from Φυλλον, a leaf, and Ους, ωτος, an ear.

	unc.	lin.
Longitudo ab apice rostri usque ad caudæ basin	6	8
——— *caudæ*	5	6
——— ab apice rostri ad marginem oculi	0	8
——— ab apice rostri ad basin auris	1	4½
——— *tarsi digitorumque*	1	2½
——— *auris*	0	8½
Latitudo *auris*	0	8½

Hab. Rio Negro.

This species may be readily distinguished from *M. xanthopygus* by the greater proportionate length of its tail.

Two species of small Rodents were next characterized as constituting examples of a new genus, for which Mr. Waterhouse proposed the name of

REITHRODON.*

" *Dentes primores* $\frac{2}{2}$; inferioribus acutis, gracilibus, et anticè lævibus; superioribus gracilibus, anticè longitudinalitèr sulcatis.

Molares utrinque $\frac{3}{3}$ radicati; primo maximo, ultimo minimo: primo superiore plicas vitreas duas externè et internè alternatìm exhibente; secundo, et tertio, plicas duas externè, internè unam: primo inferiore plicas vitreas tres externè, duas internè; secundo, plicas duas externè, unam internè; tertio unam externè et internè, exhibentibus.

Artus inæquales: *antipedes* 4-dactyli, cum pollice exiguo unguiculato: *pedes postici* 5-dactyli, digitis externis et internis brevissimis.

Ungues parvuli et debiles. *Tarsi* subtùs pilosi.

Cauda mediocris, pilis brevibus adpressis instructa.

Caput magnum, fronte convexo: oculis magnis: auribus mediocribus.

" In the present genus, the incisors, compared with those of the true rats, are rather smaller in proportion, and those of the upper jaw also differ in having a longitudinal groove, a character which exists in *Euryotis* (Brants), *Gerbillus, Otomys* (Smith), *Dendromys,* and some other genera, but not combined with molars similar in structure to those above described, nor yet with similar external characters. In other respects the incisors resemble those of the genus *Mus*; that is to say, those of the lower jaw are long, slender, and pointed, and those of the upper are deep from front to back, and somewhat flattened at the sides and in front. The molars gradually decrease in size from the front to the last posterior tooth. The folds of enamel penetrate deeply into the crowns of these teeth, so that those from one side are in contact with those of the other; these folds of enamel are each nearly opposed to the salient angles of the opposite side.

" In the two species of this genus with which I am acquainted the fur is long, very soft, and consists of hairs of two lengths. The

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* Ῥεῖθρος, a channel; Ὀδὼν, a tooth.

arched form of the head and the large eyes produce in these animals a slight resemblance to young rabbits; their affinity, however, is with the *Muridæ*."

Reithrodon typicus. *Reithr. vellere suprà pilis flavescenti-fuscis et nigrescentibus intermixtis composito; regione circa oculos, genis lateribusque corporis auratis, pilis pallidè fuscis intermixtis; partibus inferioribus auratis; rhinario ad latera flavescenti-albo; auribus magnis, intùs pilis flavis, extùs flavis et fuscis, indutis; caudâ suprà pallidè fuscâ, subtùs sordidè albâ; pedibus albis.*

	unc.	lin.
Longitudo ab apice rostri usque ad caudæ basin	6	0
———— ab apice rostri ad marginem oculi	0	8$\frac{1}{4}$
———— ab apice rostri ad basin auris	1	4$\frac{1}{2}$
———— *tarsi digitorumque*	1	2$\frac{1}{2}$
———— *auris*	0	8$\frac{1}{2}$
Latitudo *auris*	0	8$\frac{1}{2}$

Hab. Maldonado.

Reithrodon cuniculoïdes. *Reithr. suprà griseus, flavo-lavatus, pilis nigris intermixtis; abdomine gulâque pallidè flavis; natibus albis; pedibus albis; auribus mediocribus, intùs pilis flavis, extùs pilis pallidè flavis, obsitis, maculâ nigrescente ad marginem anteriorem positâ; pone aures, notâ magnâ albescenti-flavâ; caudâ corpore breviore, suprà pallidè fuscâ, subtùs albâ.*

	unc.	lin.
Longitudo ab apice rostri usque ad caudæ basin	6	5
———— *caudæ*	3	3$\frac{1}{2}$
———— ab apice rostri ad marginem oculi	0	9$\frac{1}{3}$
———— ab apice rostri ad basin auris	1	4
———— *tarsi digitorumque*	1	4$\frac{1}{2}$
———— *auris*	0	7

Hab. Santa Cruz.

In conclusion, two other new Rodents were characterized under the generic name of

Abrocoma.*

Dentes primores $\frac{2}{2}$ acuti, eradicati, anticè læves: *molares* utrinque $\frac{4}{4}$ subæquales, illis maxillæ superioris in areas duas transversales ob plicas vitreas acutè indentatas divisis; plicis utriusque lateris vix æquè profundis; illis mandibulæ inferioris in tres partes divisis, plicis vitreis bis internè, semel externè indentatis, areâ primâ sagittæ cuspidem fingente, cæteris acutè triangularibus.

Artus subæquales.

Antipedes 4-dactyli, externo brevissimo, intermediis longissimis et ferè æqualibus.

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* Ἁβρος, soft; Κομη, hair.

Pedes postici 5-dactyli; digito interno brevissimo. *Ungues* breves et debiles, illo digiti secundi lato et lamellari; omnibus setis rigidis obtectis.

Caput mediocre, auribus magnis, membranaceis; oculis mediocribus.

Cauda breviuscula.

Vellus perlongum, et molle.

" The genus Abrocoma is evidently allied on the one hand to *Octodon, Ctenomys,* and *Pœphagomys,* and it appears to me almost as evidently allied on the other hand, to the *Chinchillidæ.* The dentition, however, differs considerably from either of the above-mentioned genera, or, from either of those of the family *Chinchillidæ,* and in fact indicates a new generic form*. From *Ctenomys* and *Pœphagomys* the present genus is readily distinguished, by the comparatively large size of the ears, the small delicate claws, and smaller size of the incisors; and from *Octodon* by the uniform length of the hairs on the tail.

" In the structure of the feet the genus *Abrocoma* approaches very nearly to *Octodon,* not only in the form, but in having the soles both of the fore and hind feet (which are devoid of hair) covered with minute round fleshy tubercles. In *Octodon,* however, the toes have on their under side transverse incisions as observed in the *Muridæ,* a character, however, not found in *Abrocoma*; here the under side of the toes is, like the sole of the foot, covered with tubercles.

" The extreme softness of the fur of the animals about to be described, suggested for them the generic name of *Abrocoma.* The fur consists of hairs of two lengths, and the longer hairs are so extremely slender that they might almost be compared to the web of the spider. The specific names applied are those of the distinguished naturalists who first made us acquainted with the two genera *Octodon* and *Pœphagomys,* these being very nearly allied to *Abrocoma.*"

ABROCOMA BENNETTII. *A. corpore suprà griseo, ad latera pallidiore et pallidè cervino lavato, subtùs albescenti-cervino; gulâ albescenti-griseâ; pedibus sordidè albis: auribus amplis, ad marginem posticum rectis, fere nudis, attamen extùs ad bases vellere, sicùt in corpore, obsitis: caudâ corpore breviore, ad basin crassiusculâ, pilis brevibus incumbentibus vestitâ.*

	unc.	lin.
Longitudo ab apice rostri usque ad caudæ basin	9	9
———— *caudæ*	5	0
———— ab apice rostri ad marginem oculi	0	11½
———— ab apice rostri ad basin auris	1	11
———— *tarsi digitorumque*	1	4
———— *auris*	0	10
Latitudo *auris*	1	0½

Hab. Chili.

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* " I may here mention that the folds of enamel in the dentition of the lower jaw very much resemble those in the teeth of the genus *Arvicola.*"

Abrocoma Cuvieri. *Ab. suprà grisea, levitèr ochraceo lavata; abdomine gulâque albescenti-griseis; pedibus sordidè albis; auribus amplis, ad marginem posticum distinctè emarginatis, ferè nudis attamen extùs ad bases vellere, sicùt in corpore, obsitis: caudâ corpore multò breviore, et nigrescente.*

	unc.	lin.
Longitudo ab apice rostri usque ad caudæ basin	6	6
———— *caudæ*	2	10
———— ab apice rostri ad marginem oculi .	0	6¾
———— ab apice rostri ad basin auris	1	4
———— *tarsi digitorumque*	1	1
———— *auris*	0	7
Latitudo *auris*	0	7½

Hab. Valparaiso.

March 14th, 1837.

Richard Owen, Esq., in the Chair.

A paper was read, "On the habits of the *Vultur aura*," by Mr. W. Sells, with notes of dissections of the heads of two specimens, by Mr. R. Owen.

The writer states that this bird is found in great abundance in the Island of Jamaica, where it is known by the name of *John Crow*; and so valuable are its services in the removal of carrion and animal filth, that the legislature have imposed a fine of £5 upon any one destroying it within a stated distance of the principal towns. Its ordinary food is carrion, but when hard pressed with hunger it will seize upon young fowls, rats, and snakes. After noticing the highly offensive odour emitted from the eggs of this bird when broken, Mr. Sells relates the following instances which have come under his own personal observation, for the purpose of proving, that the *Vultur aura* possesses the sense of smell in a very acute degree.

"It has been questioned whether the vulture discovers its food by means of the organ of smell or that of sight. I apprehend that its powers of vision are very considerable, and of most important use to the bird in that point of view; but that it is principally from highly organized olfactories that it so speedily receives intelligence of where the savory morsel is to be found will plainly appear by the following facts. In hot climates the burial of the dead commonly takes place in about twenty-four hours after death, and that necessarily, so rapidly does decomposition take place. On one occasion I had to make a post-mortem examination of a body within twenty hours after death, in a mill-house, completely concealed, and while so engaged the roof of the mill-house was thickly studded with these birds. Another instance was that of an old patient and much-valued friend who died at midnight: the family had to send for necessaries for the funeral to Spanish Town, distant thirty miles, so that the interment could not take place until noon of the second day, or thirty-six hours after his decease, long before which time, and a most painful sight it was, the ridge of the shingled roof of his house, a large mansion of but one floor, had a number of these melancholy-looking heralds of death perched thereon, beside many more which had settled in trees in its immediate vicinity. In these cases the birds must have been directed by smell alone as sight was totally out of the question.

"In opposition to the above opinion, it has been stated by Mr. Audubon that vultures and other birds of prey possess the sense of smell in a very inferior degree to carnivorous quadrupeds, and that so far from guiding them to their prey from a distance, it affords them no indication of its presence, even when close at hand. In confirmation of this opinion he relates that he stuffed the skin of a deer full of hay and placed it in a field; in a few minutes a vulture alighted near it and directly proceeded to attack it, but finding no eatable food he at length quitted it. And he further relates that a dead dog was concealed in a narrow ravine twenty feet below the surface of the earth around it and filled with briers and high canes; that many vultures were seen sailing in all directions over the spot but none discovered it. I may remark upon the above experiments that in the first case the stag was doubtless *seen* by the birds, but it does not follow that they might not also have smelt the hide, although inodorous to the human nose; in the second case, the birds had undoubtedly been attracted by *smell*, however embarrassed they might have been by the concealment of the object which caused it. I have in many hundred instances seen the vulture feeding upon small objects under rocks, bushes, and in other situations where it was utterly impossible that the bird could have discovered it but through the sense of smell; and we are to recollect that the habit of the vulture is that of soaring aloft in the air, and not that of foraging upon the ground."

Mr. Sells's communication was accompanied by the following letter from Mr. Owen, addressed to the Secretary, W. Yarrell, Esq.

"Dear Sir,—I received the heads of the *John Crow*, which I suppose to be the *Vultur aura* or *Turkey Buzzard*, and have dissected the olfactory nerves in both; as also in a *Turkey* which seemed to me to be a good subject for comparison, being of the same size, and one in which the olfactory sense may be supposed to be as low as in the *Vulture*, on the supposition that this bird is as independent of assistance from smell in finding his food as the experiments of Audubon appear to show. There is, however, a striking difference between the *Turkey Vulture* and the *Turkey* in this part of their organization. The olfactory nerves in the *Vulture* arise by two oval ganglions at the anterior apices of the hemispheres from which they are continued 1½ line in transverse diameter, and 2 lines in vertical diameter, and are distributed over well-developed superior and middle spongy bones, the latter being twice the dimensions of the former. The nose is also supplied by a large division of the supraorbital branch of the 5th pair, which ascends from the orbit, passes into the nose crossing obliquely over the outer side of the olfactory nerve, extending between the superior spongy bone and the membrane covering the middle spongy bone, then descending, and after supplying the inferior and anterior spongy bone escaping from the nasal cavity to supply the parts covering the upper mandible. This olfactory branch of the 5th pair is about ¼th the size of the true olfactory nerve.

"In the *Turkey* the olfactory branch of the 5th nerve is about the same size as in the *Vulture*, and is superior in size to the true olfactory nerve, which is only about ⅕th the size of that in the *Vulture*. The olfactory nerve does not form a ganglion at its commencement, but is continued as a small round chord from the anterior apex of each hemisphere, and is ramified on a small middle spongy bone, there being no extension of the pituitary membrane over a superior turbinated bone as in the *Vulture*. Indeed the difference in the development of the nasal cavity is well marked in the different forms of the head in these two species. In the *Vulture* there is a space between the upper parts of the orbits in which the olfactory ganglions and nerves are situated, and the nasal cavity anterior to these is of a much greater breadth and also longer, as well as exhibiting internally a greater extent of pituitary surface, than in the *Turkey*. In this bird the olfactory nerves are compressed within a narrow interorbital space, which would not admit of the lodgement of ganglions; the olfactory nerves after passing through this space then diverge to the nasal cavity.

"In the *Goose* the olfactory nerves are developed to the same size as in the *Vulture*, and expand upon superior spongy bones of similar form, but placed wider apart, and these supply the middle spongy bones which are longer but not so broad as in the *Turkey*. The olfactory branch of the 5th pair is double the size of that in the *Vulture* or *Turkey*; it gives, however, not a greater proportion of filament to the nose than in those birds, but is mainly expended upon the membrane covering the upper mandible.

"The above notes show that the *Vulture* has a well-developed organ of smell, but whether he finds his prey by that sense alone, or in what degree it assists, anatomy is not so well calculated to explain as experiment.

"I will bring my preparations showing the above at next meeting, and am truly yours,

"Royal College of Surgeons, March 7th." "R. Owen."

Mr. Gould brought before the notice of the meeting, from the collection of Mr. Darwin, a new species of *Rhea* from Patagonia, and after offering some observations upon the distribution of the *Struthionidæ*, and upon the great interest attending this addition to that family, he remarked that the new species is distinguished from *Rhea Americana* of authors, in being one-fifth less in size, in having the *bill* shorter than the head, and the *tarsi* reticulated in front instead of scutellated, and in being plumed below the knee for several inches. It has also a more densely plumed wing, the feathers of which are broader, and all terminated by a band of white.

Mr. Gould, in conclusion, adverted to the important accessions to science resulting from the exertions of Mr. Darwin, and to his liberality in presenting the Society with his valuable Zoological Collection; to commemorate which he proposed to designate this interesting species by the name of *Rhea Darwinii*.

Mr. Darwin then read some notes upon the *Rhea Americana*, and upon the newly described species, but principally referring to the former.

This bird abounds over the plains of Northern Patagonia and the United Provinces of La Plata; and though fleet in its paces and shy in its nature, it yet falls an easy prey to the hunters, who confound it by approaching on horseback in a semicircle. When pursued it generally prefers running against the wind, expanding its wings to the full extent. It is not generally known that the *Rhea* is in the habit of swimming, but on two occasions Mr. Darwin witnessed their crossing the Santa Cruz river, where its course was about 400 yards wide and the stream rapid. They make but slow progress, their necks are extended slightly forwards, but little of the body appears above water. At Bahia Blanca, in the months of October and September, an extraordinary number of eggs are found all over the country. The eggs either lie scattered about, or are collected together in a shallow excavation or nest; in the former case they are never hatched, and are termed by the Spaniards *Huachos*. The Gauchos unanimously affirm that the male bird alone hatches the eggs, and for some time afterwards accompanies the young. Mr. Darwin does not doubt the accuracy of this fact, and states that the cock bird sits so closely that he has almost ridden over one in the nest. Mr. Darwin has also been positively informed that several females lay in one nest, and although the fact at first appears strange, he considers the cause sufficiently obvious, for as the number of eggs varies from 20 to 50, and, according to Azara, even 70 or 80, if each hen were obliged to hatch her own before the last was laid, the first probably would have been addled; but if each laid a few eggs at successive periods in different nests, and several hens, as is stated to be the case, combine together, then the eggs in one collection would be nearly of the same age. Mr. Burchell mentions that in Africa two ostriches are believed to lay in one nest.

Mr. Darwin then proceeds to notice the other species of *Rhea*, which he first heard described by the Gauchos, at River Negro, in Northern Patagonia, as a very rare bird, under the name of *Avestruz Petise*. The eggs were smaller than those of the common *Rhea*, of more elongated form, and with a tinge of pale blue. This species is tolerably abundant about a degree and a half south of the Rio Negro, and the specimen presented to the Society was shot by Mr. Martens at Port Desire in Patagonia, (in latitude 48). It does not expand its wings when running at full speed, and Mr. Darwin learned from a Patagonian Indian that the nest contains fifteen eggs, which are deposited by more than one female. It is stated in conclusion that the *Rhea Americana* inhabits the country of La Plata as far as a little south of the Rio Negro, in lat. 41°, and that the *Petise* takes its place in Southern Patagonia.

Mr. Chambers then brought before the notice of the Society a simple process for taking impressions from feathers, which is effected by placing the feathers between two sheets of paper, the lower one being previously well damped, and the upper covered with printers' ink; both are then passed through the rolling press of a copper plate printer, and on removing the upper sheet perfect figures of the feathers will be left, which may be coloured when dry, and will then have the resemblance of feathers placed on paper.

March 28th, 1837.

Dr. Bostock, in the Chair.

Mr. Chambers read a paper upon the habits and geographical distribution of *Humming Birds*, and exhibited the nest and eggs of the only species (*Trochilus colubris,*) which visits the United States, and which is there very commonly bred in confinement. Mr. Chambers adverted to the probability of success if attempts were made to domesticate these birds in this country. A lady residing at Boston informed him that in that city they are readily reared in cages, and she expressed great surprise on hearing that only one instance had occurred of their being domesticated in England, as the climate so nearly corresponds.

The first part of a paper was then read by F. Debell Bennett, Esq., corresponding member, on "The Natural History of the Spermaceti Whale."

Mr. Yarrell then brought before the notice of the meeting "A Synopsis of the *Fishes* of Madeira," by the Rev. R. T. Lowe, Corresponding Member of the Society. This synopsis includes all the *Fishes* hitherto found at Madeira, with observations upon many of the species, and the character of such genera and species as are new. The Author has also drawn up a table, showing the comparative number and distribution of the British, Mediterranean, and Maderan *Fishes*. It appears from this, that notwithstanding the uniformity of its shores, both in structure and materials, occasioning a corresponding uniformity in food and shelter, that the number of marine species found at Madeira equals two thirds the amount belonging to the British seas.

With the exception of the genus *Anguilla*, the fresh-water species are entirely absent, the physical structure of the island preventing the formation of lakes and pools, and reducing its streams to the character of rapid rivulets or mountain torrents. A result indicated by the table just referred to, and which Mr. Lowe particularly notices, is, that Madeira possesses as many species in common with Britain as it has with the Mediterranean, and also that there is a variation in the ratio between the marine *Acanthopterygians* and *Malacopterygians* proportionate to the latitude. In Britain the marine *Acanthopterygians* are to the marine *Malacopterygians* as one and a quarter to one; in the Mediterranean, as two and three fifths to one; while at Madeira the ratio increases to three and a half to one.

The Author's remaining observations principally relate to the particular periods of the year, and to the comparative abundance in which certain species are met with.*

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* The paper will appear in the Society's Transactions.

A Notice by Thomas Wharton Jones, Esq., was then read, "On the mode of closure of the gill-apertures in the tadpoles of Batrachia."

Mr. Jones observes, that when the right gill of the tadpole disappears, it is not, as is usually supposed, by the closure of the fissure through which it protrudes, but by the extension of the opercular fold on the right side towards that of the left, forming but a single fissure, common to the two branchial cavities, through which the left gill still protrudes. He also remarks that conditions analogous to those which occur during several stages of this process exist in the branchial fissures of the anguilliform genera, *Sphagebranchus*, *Monopterus*, and *Synbranchus*.

April 11th, 1837.

The Rev. John Barlow, in the Chair.

The reading of Mr. F. De Bell Bennett's paper "On the Natural History of the Spermaceti *Whale*," was resumed.

Mr. Bennett first notices the gregarious habits of the sperm *Whales*, which are usually found in parties consisting of half-grown males, or of females attended by their young, and guarded by one or more males of the largest size. If a solitary *Whale* be ever observed, it almost invariably proves to be an aged male, probably driven from the society of its companions.

From the author's observations he is inclined to consider that the speed of an alarmed *Cachalot* does not exceed from eight to ten miles an hour, although when harpooned its temporary velocity may be estimated at from twelve to fifteen miles per hour.

When thus flying from pursuit, the spermaceti *Whale* moves with a regular and majestic although rapid pace, and with a gently leaping gait; the anterior and upper portions of the colossal head raised above the water, and a portion of the back being also often exhibited above the surface of the sea. When flying in parties they often move in lines like a troop of horse, exerting their peculiar leaping action, descending, rising, and often even spouting in unison.

When descending, the spermaceti *Whale* assumes a vertical position, raising the caudal fin or flukes *perpendicularly* in the air; an action that is performed leisurely, and one that distinguishes this from most other species of cetaceans. This manœuvre is not, however, invariably performed, since, when leisurely feeding, or carelessly avoiding a boat, the *Cachalot* will descend very gradually, lowering itself, or as it is technically termed, 'settling down.'

The following are Mr. Bennett's observations upon the spouting of the *Cachalot*:—

"From the position of the *larynx*, as well as the mouth being constantly beneath the water in the natural posture of the body, the only medium for respiration is through the nostril or spiracular canal, and from the external aperture of this organ a constant succession of jets of vapour is *cast* whilst the *Cachalot* continues on the surface of the water; each *spout* succeeding the other, after an interval of ten or fifteen seconds, and with a regularity highly characteristic of this kind of *Whale*. The respiratory jet, or spout, is thrown in a direction obliquely upward and forward, in the form of a dense white mist or cloud composed of many minute and scattered drops of condensed vapour. It is sent forth by one continued effort, seldom rises higher than six or eight feet, remains suspended in the air but a short time, and is accompanied by a prolonged rushing sound, resembling that

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of a moderate surf on a smooth beach, the anterior portion of the head being raised higher above the surface of the sea at each explosive effort. The spout is neither abruptly terminated nor succeeded by any audible sound of suction or 'drawback' (produced by succeeding inspiration), as is the case with the spouting of some other of the less valued cetaceans, as fin-backs, &c. The sound, indeed, attending the spouting of the *Cachalot* is so peculiar that the practised whaler can detect the close vicinity of this *Whale* as well by sound as by sight, and in the darkness of night as by the light of day. Although a secondary use for the spiracle may be found in clearing the mouth of water received with the food, it is yet tolerably evident that the ordinary spouting of *Whales* is the simple act of breathing, and the moisture ejected the ordinary halitus of expiration more or less condensed in the atmosphere. This appears proved by the regular and constant renewal of the spout in correspondence with the *rhyme* of respiration, it being neither intermitted nor varied in aspect when *Whales* are alarmed and swimming rapidly through the sea, and their closed mouths admitting no water, and by its being equally well timed and unchanged when the spiracle is raised high above the calm and level sea, as when liable to be washed by turbulent waves. It is also reasonable to suppose that the necessity for casting forth sea water by this channel would exist to a greater degree, during their visits to the ocean's depths where they seize and generally devour their prey, and where it would be impossible for the spiracular canal to contain all the fluid thus received until the return to the air. Nor, indeed, could such delay be necessary, since the operation for its expulsion through the spiracle could be as completely performed, if required, under water. The nature of the spout, moreover, is rather that of a light mist, and can in no way be compared to a volume of water. It appears to me that the clearest idea and most correct view we can entertain of the nature of the *Whale's* spout, may be derived from the cloud of vapour produced by the expiration of terrestrial animals under a low temperature, as during the frosty weather of this climate; the sole difference existing in the vast bulk and capacity of the lungs in cetaceans causing the halitus of expiration to be evident under all temperatures, whilst in the smaller mammalia it is only to be noticed when the thermometer maintains a low grade.

"It is not unusual during a close encounter with the *Cachalot* for the *Whale* to spout into the boats amongst the crew, when those who experienced its contact described it to me as fœtid in odour and producing an acrid effect."

From the facility with which the *Whale* is approached by boats, provided they are not brought within the line of vision, Mr. Bennett infers that this animal possesses the sense of hearing in a very imperfect manner, a deficiency, however, which appears to be in some measure compensated for by the perfection in which it possesses the sense of touch, through the medium of a smooth skin, abundantly supplied with nervous papillæ. It even appears as though the *Cachalots* had the means of conveying impressions one to another through the water at considerable distances, for it is a fact well known to the southern whalers, that upon a *Cachalot* being struck from a boat, others that are miles distant will almost instantaneously display by their actions an apparent consciousness of what has occurred, and either take themselves off or come down to the aid of their injured companion. This intelligence Mr. Bennett supposes can only be communicated by a concussion of the water. Speaking of the general temper and disposition of this species, he remarks, "like most terrestrial animals that are gregarious and herd together in great numbers, spermaceti *Whales* are naturally timid, and prone to fly from the remotest aspect of danger, and although many instances occur amongst them of a mischievous and combative temper, attacking and destroying boats and men with their flukes and jaws, (as I shall have occasion elsewhere to notice,) such is rather to be deemed appertaining to the individual than the common character, and on a par with similar traits of temper and excited by similar causes, as we find occasionally prevail amongst horses, oxen, and other *Herbivora*, between the cetacea and which a closer parallel of comparison may be drawn, both as regards mental character and anatomical structure, than upon a superficial view of the two tribes of animals would appear possible. A shoal of *Porpoises* mingling with and jumping amongst them is sufficient to alarm and put to flight a party of *Cachalots*, and when on a well-beaten cruising ground, where the *Whales* are usually exceedingly watchful and wary, the whaler is well on his guard not to excite or confirm their suspicion until he has secured his prizes. The signs exhibited by the sperm *Whale* of a suspicion of danger are, lying motionless in the manner of listening, occasionally ceasing to spout, sweeping their flukes slowly from side to side, and turning upon the side to bring the axis of vision upon any object above them."

"When pursued and attacked a shoal of these *Whales* may be considered to exhibit two degrees of alarm, viz., that of a less degree, which puts them to the top of their speed to escape, and which frequently baffles pursuit; and a more powerful and overwhelming impression of fear, arising either from the close approach of their enemies or from one of their number being injured or destroyed, when they often lie huddled together motionless and trembling, or make such confused and irresolute efforts to escape as afford the attacking boats every chance of success. It commonly occurs when female *Whales* are harpooned that they mutually assist each other, and remain around their injured companions for a long time; whilst the males, under the same circumstances, commonly make a speedy retreat, and leave their afflicted comrades to their fate. When suddenly surprised by a boat, the *Whale*, although uninjured, is seen to tremble, and void its excrement, which is semi-fluid, fœtid, and resembles coffee grounds spread on the water."

After detailing some circumstances connected with the gestation of the sperm *Whale* and its mode of copulation, the author remarks, "There is much reason to suppose the *Cachalots* are very prolific; sucking calves appear to be noticed at all seasons of the year. We observed them during the voyage in the months of January, February, May, June, July, August, September and December."

It appears that the sperm *Whale* is not like the *Balæna mysticetus*, constantly found with *Barnacles* and other parasites adhering to its skin, a circumstance accounted for by Mr. Bennett from the former species inhabiting deep water, while the latter frequents soundings, and is also much more sluggish in its movements. One species of *Barnacle*, the *Otion Cuvieri*, is sometimes found attached in a single cluster to the lips or lower jaw of the *Cachalot*, and a few small *Onisci* occasionally adhere to the skin; in its blubber also numerous cysts of a species of *Cysticercus* are met with.

Mr. Bennett, in the latter part of his memoir, notices the obstinacy and determination which these *Whales* often display when attacked or wounded, and also enumerates some of the different species of animals which are thought to indicate their approach, and he concludes with a reference to their occurrence in the British seas, and some observations upon their geographical distribution.

Mr. Gould then called the attention of the meeting to a new and beautiful species of *Ortyx*, a native of California, from the collection of the late David Douglas, and characterized it under the name of *O. plumifera*.

ORTYX PLUMIFERA.

Ort. capite, nuchâ, pectoreque intensè cinereis; plumis duabus gracilibus et subpendentibus e vertice nigris; gulâ intensè castaneâ ad latera lineâ albâ, infra oculos notâ nigrâ; loro sordidè albo; corpore superiore olivaceo-fusco; rectricibus caudæ fuscis nigro irroratis; alæ primariis brunneis, pogoniis externis, pallidioribus; abdominis lateribus intensè castaneis; suprà lineâ albâ marginatis; infra fasciis nigris atque albis ornatis; abdomine medio crissoque castaneis; rostro nigro; pedibus pallide-brunnescentibus.

Long. tot. $9\frac{3}{4}$ unc.; *rostri*, $\frac{3}{4}$; *alæ*, $5\frac{1}{4}$; *caudæ*, $3\frac{1}{2}$; *tarsi*, $1\frac{6}{8}$.
Hab. California.

Fœm. vel mas junior a mare adulto differt, corpore minore, coloribus obscurioribus, plumisque capitis brevioribus.

He remarked that this genus was first brought before the Society eight or nine years ago by Mr. Vigors, at which time only five species were known, but since that period the number had been doubled; and from the remarkable development of the feathers forming the crest in the species then exhibited Mr. Gould anticipates the discovery of others, which shall connect *Ortyx plumifera* with those species in which this character is less prominently shown. In support of this opinion Mr. Gould directed attention to the genera *Larus, Trogon* and *Caprimulgus*, which possess certain characters largely developed; but the degree of development increases gradually from the species in which it is least apparent to those in which it attains its greatest extent.

Mr. Gould then exhibited a new species of the genus *Podargus*, from Java, which he proposes to name *P. stellatus*.

PODARGUS STELLATUS.

Podarg. corporis plumis, alis, caudâque crebre guttulis, notisque irregulariter interruptis, his pallide brunneis, illis fuscis, ornatis, colli plumis lineâ angustâ nigrâ fasciatis ad apicem latis, et albescentibus lunulam facientibus; post oculos plumis pilosis elongatis orientibus, et posticè directis tectricibus alarum ad apicem marginis interioris notâ albescente, nigro posticè cinctâ, ornatis scapularibus inferioribus pallidioribus; pectoris plumis nonnullis flavescenti albo guttatis; rostro pedibusque pallide fuscis.

Long. tot. 8 unc.; *rostri*, 1½; *alæ*, 4; *tarsi*, ½.

Hab. Java.

Some observations on the *Physalia*, by George Bennett, Esq., F.L.S., Superintendant of the Australian Museum at Sydney, and Corresponding Member of the Zoological Society, were then read.

Some specimens of *Physalia pelagica* having been captured by Mr. Bennett while on his voyage to Sydney, he had an opportunity of observing the action of the numerous filamentary bodies attached to the air-bladder of this animal.

The longest of these appendages are used by the *Physalia* for the capture of its prey, and are capable of being coiled up within half an inch of the air bladder, and then darted out with astonishing rapidity to the distance of 12 or 18 feet, twining round and paralyzing by means of an acid secretion any small fish within that distance. The food thus seized by the *tentacula* is rapidly conveyed to the short appendages or tubes, which are furnished with mouths for its reception. These tubes appear to constitute the stomach of the animal, for upon a careful dissection nothing like a common receptacle for food could be observed, nor could Mr. Bennett detect any communications between them and the air-bladder, to the inferior portion of which they are attached by means of a dense muscular band. After an examination of an immense number of specimens, Mr. Bennett was unable to discover the orifice usually stated to exist at the pointed end of the bladder, nor could he ever succeed in expelling any portion of the contained air without a puncture being previously made. This organ consists of two coats, the outer of which is dense and muscular, readily separating from the inner, which resembles a cellular membrane.

The partial escape of air from the bladder did not at all affect the buoyancy, or appear in any way to incommode the *Physalia*; and even when it had completely collapsed, the animal still floated on the surface; upon removing the bladder entirely, the mass of tentacula sank to the bottom of the vessel, and though their vitality remained, all power of action was entirely destroyed.

A letter was then read, addressed to Mr. Gould, from M. Natterer, describing a new species of *Pteroglossus*, from Para in Brazil, which the writer proposes to name *P. Gouldii*, in commemoration of the valuable contributions which ornithology has derived from the labours of Mr. Gould.

PTEROGLOSSUS GOULDII.

Ptero. summo capite, nuchâ, gutture, pectore, abdomineque nigris; plumis auricularibus aurantiaco-flavis ad apicem stramineis; fasciâ semilunari nuchali flavâ; dorso, alis, caudâque olivaceo-fuscis; hujus rectricibus sex intermediis apice castaneo; lateribus aurantiaco-flavis; femoribus castaneis, crisso coccineo, cute circa oculos viridi; rostri mandibulâ superiore nigrâ, apicem versus livide corneâ, apice albo, fasciâque angustâ albâ ad basin; mandibulâ inferiore albâ fasciâ nigrâ, apiceque livide corneo, pedibus plumbeis.

Fœmina differt partibus, quæ in mare nigræ, in illâ castaneis, et lateribus plumisque auricularibus pallidioribus.

Long. tot. 11 unc.; *rostri*, $2\frac{1}{8}$; *alæ*, 5; *caudæ*, $4\frac{3}{4}$; *tarsi*, $1\frac{1}{8}$.

April 25th, 1837.

Thomas Bell, Esq. in the Chair.

A letter was read addressed to N. A. Vigors, Esq., M.P., from Mr. Henry Denny of Leeds, stating that a fine male specimen of the Snowy Owl had been recently captured at Selby in Yorkshire.

Mr. Gray then exhibited the horn of a Deer supposed to come from India, which he considered as characteristic of a new species peculiar for the elongate acute form of the basal branch, which appears to have been depressed, and directed obliquely across the forehead of the animal. This horn, which had not attained its full period of growth, agreed with that of the Rein Deer, in being palmate, and in having the basal frontlet depressed, in which latter character it is allied to an Indian species called by Mr. Gray *Cervus Smithii*, known by a drawing belonging to the collection of General Hardwick in the British Museum.

Mr. Gray then adverted to some observations which he had made on a former occasion during a discussion upon the nature of the relation existing between the Argonaut shell and the Cephalopod which inhabits it. On that occasion, one argument made use of by him in favour of the parasitic nature of this animal, was, that the nucleus of the Argonaut shell is larger than could be contained within the eggs which often accompany the Ocythöe. He is now disposed to attach less importance to this circumstance, having recently observed that the eggs of some mollusca, as the *Buccinum undatum*, prior to the period of hatching, are eight or ten times as large in diameter as when first deposited.

A paper was then read by Thomas Bell, Esq., entitled "Observations on the genus *Galictis*, with a description of a new species." Mr. Bell in 1826 laid before the Zoological Club of the Linnean Society some remarks upon a living female Grison which had been several years in his possession, and he then proposed to consider the species as constituting a new generic type, to which he gave the name of *Galictis*, but without assigning its distinctive generic characters. Since that period the examination of a specimen in the collection of the Zoological Society, exhibiting a distinct specific difference from the former, but agreeing with it in the more essential particulars, has confirmed the propriety of establishing this genus; and in the present communication the author points out the characters and affinities of *Galictis*, and gives a description of the new species under the name of *G. Allamandi*, M. Allamand having figured a specimen in the fourth edition of Buffon's Natural History, which may perhaps be identical with this second species. In constituting this new genus of *Mustelidæ*, Mr. Bell has been guided solely by the semiplantigrade form of the foot, for in no other important character does it deviate from the typical genus of that family. A knowledge of this character led Thunberg to place it among the *Ursidæ* under the name of *Ursus Brasiliensis*, to which group it slightly approximates, and in which it may probably be represented by the genus *Ratellus*. By Desmarest it is arranged in the genus *Gulo*, and the name *Gulo vittatus* given to it by that author has been adopted by the Cuviers, and all other subsequent writers, with the exception of Dr. Traill, who in the third volume of the Memoirs of the Wernerian Society restores it to its proper family, the *Mustelidæ*, but under the erroneous name of *Lutra vittata*, for it has no nearer affinity to the Otters than any other genus of that family. By Schreber it was placed among the *Viverræ*, under the name of *Viverra vittata*, and the name has been retained by Gmelin and others.

The characters of *Galictis*, and the description of the two species which at present constitute this genus, are as follows.

Fam. MUSTELIDÆ.

Genus *Galictis*, Bell.

CHAR. GEN. *Dentes molares spurii* $\frac{2\cdot2}{3\cdot3}$.
Rostrum breve.
Palmæ atque *plantæ* nudæ subplantigradæ.
Ungues breviusculi, curvi, acuti.
Corpus elongatum, depressum.

Sp. 1. *Galictis vittata*.

G. vertice, collo, dorso, atque caudâ flavescenti-griseis; rostro gulâ et pectore fuscescenti-nigris; fasciâ a fronte usque ad humeros vescenti-albidâ; pilis longis laxis.

Viverra vittata, SCHREBER, Langth., p. 447, t. cxxiv. Gmel., Syst. Nat. Linn., I. p. 89.
Ursus Brasiliensis, THUNB., Mem. Acad. Petersb., VI. p. 401, t. xiii.
Lutra vittata, TRAILL, Mem. Wern. Soc., III. p. 437, t. xix.
Gulo vittatus, DESMAR., Mammal., p. 175, sp. 268. ISID. GEOFFR. in Dict. Class., VII. p. 384. FRED. CUV. in Dict. des Sc. Nat., XIX. p. 79.
Galictis vittata, BELL, Zool. Journ., II. p. 552.
Petit furet, D'AZARA, Essai sur l'Hist. Nat. de Parag. (Trad. Franç.), I. p. 190.
Fouine de la Guyane, BUFFON, Suppl., III. p. 161, t. xxiii.
Grison, SHAW, Gen. Zool., I. p. 392. CUV., Reg. An., I. p. 146. FRED. CUV., Mam., I.
Habitat in Guyanâ, Paraguay, Braziliâ.

"The general form, attitudes, and movements of this animal resemble those of the common Polecat. The head is depressed; the muzzle moderately acute, but not attenuated, projecting beyond the lower jaw; the eyes are moderately large, the iris dark brown or nearly black; the ears short, broad, and rounded; the teeth are almost exactly similar to those of true *Mustela*, particularly *M. putorius*; the body is elongated and much depressed, covered with rather long, loose hair, the under hair soft and short; the tail more than half the length of the head and body; the hair of the tail very long and lax: the legs are rather short; the toes five on each foot, with short, strong, curved, rather acute claws; the upper part of the toes hairy; the soles of the feet naked; the fore feet with a thick pad under each toe; the palm furnished with a broad tubercle consisting of three elevated portions, with a slight one internally, and a round simple one at the wrist, behind the little or outer toe; the hinder foot likewise furnished with a thick pad beneath each toe, and a broad trifid tubercle beneath the metatarsus; there is also a long tubercle beneath the heel, at the outer side: the whole of these parts, that is to say the soles of all the feet, are covered with a soft naked skin, and are evidently placed on the ground in progression.

" The colours are very remarkable and the markings distinct and decided. The whole of the upper part of the head, the neck, the back, the flanks, and the tail, are a yellowish or light brownish grey, produced by the mixture of a dirty yellowish white with brownish black, the hairs being brownish black for about two thirds of their length, the tip dirty yellowish white; the muzzle, the cheeks, the throat, the under part of the neck, the belly, the anterior legs, and the hinder feet, are black with a brownish tinge, lighter towards the back part, and on the belly interspersed with a few whitish hairs; the grey of the upper, and the black of the under parts, are separated by a rather broad fascia extending on each side from the centre of the forehead above the eye backwards as far as the shoulder, including the ears; this fascia is of a buff or yellowish white colour.

" There is a large round follicle situated on each side the anus, covered with a muscle, and opening by a round duct within the anal orifice, secreting an unctuous matter, less fœtid than that of the Polecat, but not possessing the rather agreeable odour of the Martin or the powerful perfume of the *Viverræ.* The stomach is very simple, the pyloric extremity long, cylindrical, and curved; there is no *cæcum.*

GALICTIS ALLAMANDI.

G. vertice, collo, dorso, atque caudâ nigricanti-griseis; partibus inferioribus nigris; fasciâ a fronte usque ad collum utrinque albâ; corpore pilis brevibus adpressis.

Habitat.

" This species, although evidently distinct from the former, exhibits the same general character of colour and marking, with some remarkable differences however, which, though not easily expressed in a specific phrase, are tangible and important. The whole of those parts which in the former species are yellowish are here perfectly white; and those which are blackish brown in the former are in this pure black. The base of the hairs on the back therefore is black, and the tips quite white, forming a pure blackish grey, or black with white points and lines; whilst all the under parts of the throat and front of the belly are black. The fascia extending from the forehead back to the sides of the neck is also white. This fascia does not extend in the specimen described so far back as in the former species. The hairs of the whole body are very short in comparison, and much stiffer and more closely set. The animal is considerably larger, as far as can be ascertained, and the tail, for a stuffed specimen, shorter in proportion."

Specimens of both species were upon the table, and Mr. Bell exhibited drawings, showing the plantigrade character of the foot, and some of the internal organs.

Mr. Gould exhibited a small collection of rare European birds which had just been received by him from M. Temminck of Leyden. Among them were examples of *Grus leucogeranus, Strix ascalaphus, Limosa Terek, Pyrrhula rosea, Emberiza Lesbia, Larus Audouinii,* and a rare species of Harrier which had been killed on the banks of the Rhine; this, Mr. Gould observed, was the *Circus pallidus* lately characterized by Col. Sykes in his Catalogue of the Birds observed by him in the Dukhun, and published in the second part of the Proceedings (1832.).

May 10th, 1837.

William S. Macleay, Esq. in the Chair.

The group of groundfinches, characterised, at a previous meeting, by Mr. Gould, under the generic appellations of *Geospiza, Camarhynchus, Certhidea,* and *Cactornis,* were upon the table; and Mr. Darwin being present, remarked that these birds were exclusively confined to the Gallapagos Islands; but their general resemblance in character, and the circumstance of their indiscriminately associating in large flocks, rendered it almost impossible to study the habits of particular species. In common with nearly all the birds of these islands, they were so tame that the use of the fowling-piece in procuring specimens was quite unnecessary. They appeared to subsist on seeds, deposited on the ground in great abundance by a rich annual crop of herbage.

The remainder of the evening was occupied with the examination of an extensive series of drawings, taken from various subjects in zoology, during the progress of the late exploring expedition into central Africa; and which will form the materials for a separate Work, now preparing for publication by Dr. Andrew Smith.

A considerable proportion of the illustrations were those of new and highly interesting species; and Dr. Smith stated that it was his intention, on a future evening, to bring a part of his collection before the Society, that the Members might have the opportunity of examining the original specimens, from which the drawings had been taken.

May 23d, 1837.

W. S. Macleay, Esq. in the Chair.

A letter was read addressed to the Secretary, by Dr. Weissenborn of Weimar, Saxony, expressing the very high opinion he entertained of the value of the scientific publications of the Zoological Society, and the pleasure which it would give him to promote the interests of the Society, if it lay in his power. The letter was accompanied by a very interesting preparation of the head and cheek-pouches of the black variety of the German Marmot (*Mus Cricetus*, Linn.).

A second letter was then read from Dr. Weissenborn, addressed to the Assistant Zoological Secretary, containing some new information upon the economy of the Marmot. Dr. Weissenborn states that when this animal hybernates, the entrance to its burrow is closed by earth, which is moulded into pellets of the size of a pea or bean, so that the external air is not entirely excluded. Upon putting a number of these animals in a place of confinement, although supplied with abundance of food, they fought with and devoured one another, until only a few of the strongest were left.

This letter was accompanied with a donation of a stuffed specimen of the usual colour.

The first part of a paper on "Marine Noctilucæ," by F. De Bell Bennett, Esq., Corresponding Member of the Society, was then read.

A communication was then read from Dr. Rüppell, entitled, "A Notice of the *Phytotoma tridactyla* of Abyssinia." Dr. Rüppell states that during his travels in Abyssinia, he endeavoured, but unsuccessfully as he then supposed, to discover the bird described by Bruce, and known to naturalists as the *Phytotoma tridactyla*; since then, while engaged in the publication of the birds from that part of Africa, he found that the *Phytotoma tridactyla* was a species belonging to the genus *Pogonias*, and which had been referred by Lord Stanley to the genus *Bucco*, under the name of *Bucco Saltii*. This Dr. Rüppell proposes to change to *Pogonias Brucei*, in honour of Bruce, who was the first describer.

Dr. Rüppell sent along with this communication two copies of a plate from his Abyssinian Fauna, containing figures of the above bird, and stated that he had previously deposited stuffed specimens in the British Museum and the Collection of the Zoological Society.

June 13th, 1837.

Richard Owen, Esq., in the Chair.

The reading of Mr. Frederic Debell Bennett's paper upon Marine *Noctilucæ* was resumed.

Mr. Bennett's notes upon the phænomena connected with the luminous appearances so often exhibited by the ocean, made during a voyage round the globe, agree in their essential details, and lead to the same general inferences, as the observations of his brother, Mr. George Bennett, published in the Society's Proceedings for January 1837; the experiments in all instances, as recorded in the present memoir, tending to show that where the condition of marine phosphorescence obtains, organized bodies, secreting phosphoric light, will be found in greater or less abundance distributed throughout the ocean; these bodies being sometimes so minute as not to be detected by the naked eye, whilst at other times the luminosity appears to originate in the presence of vast numbers of *Pyrosomata* and *Medusæ*, which latter, when removed from the water, retain, while vitality lasts, their luminous properties, and are capable of communicating the phosphoric matter to objects with which they may be brought in contact. An interesting fact noticed by the author is that the *Cleodora cuspidata*, which is found floating in great numbers on the surface of the sea in various parts of the Pacific Ocean, exhibits a speck of delicate blue light, shining through the apex of its extremely thin shell.

In the following passage Mr. Bennett refers to a paper communicated by him on a previous occasion, and published in the Society's Proceedings.

"On the night of the 11th of last October, when in lat. 4° S., long. 18° W., I again witnessed the beautiful spectacle afforded by the presence in the sea of vast numbers of the *Pyrosoma Atlanticum*. Upon this occasion their number must have been very great, since the ship, proceeding at a rapid rate, continued during the entire night to pass through distinct, but extensive fields of those molluscs, floating, and glowing as they floated, on all sides of her course, and capable of being captured by net to almost any amount. Not far from the same spot I first noticed these luminous molluscs, during a voyage to India; and an account of their effects in illuminating the ocean, accompanied by some obtained specimens, I communicated in a paper to this Society, published in No. 6 of the Proceedings. To that account I have to add, from more recent observations, that since the *Pyrosoma* is enveloped by a firm membranous tunic, and the luminous power resides in small brown particles abundantly imbedded in the *parenchymatous* structure of the body, no luminous matter is communicated from its surface to any fluid or solid in contact with it. But if the *Py-*

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rosoma be cut open and immersed in water, the brown particles that escape diffuse themselves through the fluid, and shine as numerous scintillations, independent of the perfect structure. It is also worthy of remark that general friction or contact is not essential to elicit the perfect light of *Pyrosoma*, since touching one small portion of the body is sufficient to produce a brilliant glow throughout the whole. When first removed from its native element, the broader extremity of this aggregate of molluscs presented a wide and circular orifice, forming nearly a continuous surface with the central tube constituting the interior of the body; but when kept in a vessel of sea-water, or much handled, this orifice was closed by the contraction of a smooth, dense membrane at its margin, and which either obliterated the aperture, or left but a minute central orifice; water at the same time being contained in the barrel or tube of the body. Except in the action of this sphincter-like membrane, no motive power was perceptible in the *Pyrosoma*.

"Fresh water appears to act as a powerful and permanent stimulus on marine *Noctilucæ*. Those who have intervals of repose from their phosphorescence immediately emit their light when brought in contact with fresh water, and this fact was very strikingly exhibited in the *Pyrosomata*. When placed in a vessel of sea-water and permitted to remain quiet, these molluscs afforded no light, and when touched, gleamed forth only as long as the irritating cause remained, and then gradually returned to their original state. When, however, the same creatures were placed in a vessel of fresh water, they never ceased glowing with their brightest refulgence until life was extinct, which was not until after the lapse of several hours. When also the same molluscs were mutilated, or so near death as to refuse to emit light upon irritation in sea-water, immersing them in fresh water produced at least a temporary revival of their brightest gleam; indeed I have always felt assured that the contact of fresh water in a darkened room would ever elicit the luminous power of a marine creature, were the latter of a luminous nature."

At the request of the Chairman the following notes, relating chiefly to the natural history of Ireland, were read by W. Thompson, Esq., V.P., Nat. Hist. Society of Belfast.

Of the species so marked *, specimens were exhibited.

MAMMALIA.

* *Vespertilio Nattereri*, Kuhl. Reddish-grey Bat. I am induced to exhibit a specimen of this bat, which I obtained in July 1835 among the ruins of Harlech Castle, North Wales, it being hitherto only known as British from individuals procured in the east and south-east of England.

* *Mus Hibernicus*. Irish Rat. On questioning a person some years ago respecting a black rat which he had seen in the north of Ireland, my curiosity was excited by the statement that it had a white breast. In autumn last a similar description was given me of one that had

been caught some time before in Tollymore Park, county of Down. Mr. R. Ball, of Dublin, informs me that black rats, with the breast white, have been reported to him as once common about Youghal, county of Cork, though they are now very rare or perhaps extinct. But until April last, when a specimen was sent from Rathfriland, county of Down, to the Belfast Museum, I had not an opportunity either of seeing or examining the animal. This individual differs from the *M. Rattus* as described by authors, and also from specimens preserved in the British Museum, and in the collection of this Society, in the relative proportion of the tail to that of the head and body; in having shorter ears, and in their being better clothed with hair, as is the tail likewise; and in the fur of the body being of a softer texture. The difference in colour between the *M. Rattus* and the present specimen is, that the latter exhibits a somewhat triangular spot of pure white extending about nine lines below the breast, the fore feet being of the same colour.

The following is a comparison of this specimen with the *M. Rattus* as given by Mr. Jenyns. The same dimensions, with the very trivial difference of the ears being half a line less, appear in Mr. Bell's "British Quadrupeds."

	M. Hibernicus.			M. Rattus.	
	in.	line.		in.	line.
Length of the head and body	7	6	..	7	4
——————— head	1	10	..	1	10
——————— ears	0	9	..	0	$11\frac{1}{2}$
——————— tail..................	5	6	..	7	11
——— from the base of the ear to the snout	1	6			
——— from the tarsal joint to the end of the toes	1	6			

These differences incline me to consider this animal distinct from *M. Rattus*, and being unable to find any species described with which it accords, I propose to name it provisionally *M. Hibernicus*. Should future investigation prove it to be a variety only of *M. Rattus*, it can be so considered under the present appellation.

* *Lepus Cuniculus*, Linn. Rabbit. Persons who take rabbits in the north of Ireland distinguish two kinds, the one they call the *burrow*, the other the *bush* rabbit. The meaning of the former term is obvious, but of the latter it may be stated that the animal is so designated, in consequence of having a "form" like the hare, and which is generally placed in bushes or underwood. The circumstance is noticed at present in connection with a specimen of each kind which I have the pleasure of presenting to the Society.

Cervus Alces, Linn. Elk. A horn of the true elk, *C. Alces*, was some time since presented to the Natural History Society of Belfast, as that of the fossil Irish species, *C. Hibernus*. On inquiry from the donor I learned that it had been given him by a relative residing in Tyrone, and in whose possession it had for a long time been on account of the value attached to it as a relic dug out of a peat-bog on his own property in that county. Further particulars cannot now be obtained, as the gentleman is since deceased, but I have thought it proper to lay the statement as I received it before this Society, with the additional remark that the horn is quite perfect and appears recent; but again, might not this be attributed to the well-known preservative property of the soil in which it is said to have been found? The number of snags upon the horn, and its dimensions show that it belonged to a very old animal: its breadth, measured in a straight line across the centre, without the curve being reckoned, is 35 inches; its height, similarly estimated in a straight line from the base, 26½ inches.

As the elk inhabited a wide range of latitude on the continent of Europe it does not appear singular to me that it should have been a native of Ireland, especially when the *Cervus Hibernus*, a species of greater magnitude, was indigenous to the country. In the *Annales des Sciences Naturelles* for 1835, t. iv. (new series), portions of the horn of the *Cervus Alces* are figured and described by M. Christol, from specimens found in a fossil state at Pézénas.

Birds, *new to Ireland.*

Strix Scops, Temm. Scops-eared Owl. I have been informed by Robert Ball, Esq., of Dublin, that an owl of this species was shot in the month of July a few years ago by the gamekeeper at Loughcrew, county of Meath, the seat of J. W. L. Napier, Esq., in whose possession it now is. The specimen was kindly sent to Dublin for the examination of Mr. Ball, who states in a letter to me that it proved identical with a *Strix Scops* that I have seen in his collection.

Colymbus arcticus, Linn. Black-throated Diver. In the collection of Dr. J. D. Marshall, of Belfast, there is a specimen of this bird, which was shot during winter in Larne Lough, county of Antrim. It is in the plumage of the first year.

* *Procellaria Puffinus*, Linn. Cinereous Shearwater. Of this species one individual only has yet been recorded with certainty as British. I have now to notice a second specimen, respecting which Mr. Robert Davis, Jun., of Clonmel, has favoured me with the following particulars. "It was taken in August 1835, by a boy who saw it scrambling towards a hole at the base of a cliff near Dungarvan, county of Waterford. They are called *hagdowns* by the fishermen, who say that they breed there and live in holes in the rocks, but are at all times very scarce. The specimen was sent to me alive, and apparently in good health, but it would not eat any thing, and died after having been in my possession for about ten days or a fortnight. It had an extremely rank, fishy, or oily smell at all times, but I never saw any appearance of oil being discharged from its mouth or nostrils. It seemed unable to walk, but scrambled along with its breast about an inch from the ground. Although its wings were perfect and uninjured, it made no attempt to fly, but if let fall from a height dropped heavily to the ground. It showed an inclination to climb, having several times mounted up the handle of a long spade that

rested against the wall of the yard in which it was kept. It did not ramble about, nor care much for water, but when put in a large tub very dexterously pulled itself up by the hooked bill, until the claws got on the edge. When handled, it bit severely."

The specimen now belongs to Mr. W. D. King, of Sudbury, to whom I am indebted for the opportunity of examining it, and also of exhibiting it here. It accords well with Temminck's description of the adult bird.

FISHES.

The first to be described in this class is a new genus of the family *Tænioideæ*, for which I propose the name of *Echiodon*. It is founded upon a specimen obtained on the coast of the county of Antrim, by Dr. J. L. Drummond, in June 1836.

ECHIODON.

Head oval; body much elongated, compressed, narrow, lanceolate; snout moderately long; mouth cleft obliquely, both jaws terminated by large cylindrical teeth; no ventral fins, nor scales instead; fin-rays all soft; dorsal and anal fins continued throughout almost the entire length; branchiostegous membrane with seven rays.

Considered relatively to the other *Tænioideæ* it agrees with *Trichiurus* and *Stylephorus*, in wanting ventral fins, but not in any other generic character; from the head posteriorly it approaches most nearly to *Cepola*, but in the form of the head and in dentition differs remarkably from all the other genera.

* *Echiodon Drummondii.* Length 11 inches, depth 6 lines, breadth 3 lines, head one-ninth of the whole length, eye occupying the entire upper half of head, teeth numerous and small, except two, which are large and fang-like at each side the extremity of the upper jaw, and one long cylindrical tooth terminating the lower jaw on each side; upper jaw the longer; dorsal, anal, and caudal fins united; body without scales (?); lateral line inconspicuous; vent $1\frac{1}{4}$ inch from point of lower jaw; vertebræ 98.

D. 180? A. 180? P. 16? C. 12?

* *Crenilabrus microstoma*, Couch MS. Small-mouthed Wrasse. In June 1836, Dr. Drummond found a *Crenilabrus*, on the beach at Cairnlough, county of Antrim, which he liberally handed over to me, and appearing to be a new species, I at once drew up a detailed description of it. I now find that the same Wrasse has been met with in Cornwall by Mr. Couch, who likewise considered it as new and sent two specimens to Mr. Yarrell, under the appropriate name of *Cren. microstoma*, a term, though unpublished, which I consider it but fair to adopt, as Mr. Couch had the priority in obtaining the species.

My specimen is about 3 inches long and moderately deep in proportion, its depth being to its length as 1 to $3\frac{1}{2}$. Its most prominent characters are,—mouth small, jaws equal, teeth few in number and without serratures, a single row in the lower, and two rows in the upper jaw; scales very large, those of the body concealing the base of the dorsal and anal fins, but none apparent on the fins; anal fins with six spinous rays, ventral scale half the length of ventral fin; pre-opercle strongly denticulated.

D. 19+6; A. 6+7; P. 13; V. 1+5; C. (which is injured) 14?

* *Crenilabrus multidentatus.* Ball's Wrasse. Three specimens of a *Crenilabrus,* taken at Youghal in the summer of 1835, have been sent me for examination by Mr. Ball. As in the instance of the last noticed, I cannot by careful research find any species described with which they agree, I, though with hesitation, bring them forward as new, under the name of *Cren. multidentatus.* The specimen from which the description has been drawn up is 2½ inches in length. Its chief characters are,—form elongated, mouth large and powerfully armed, upper jaw the longer, pre-opercle slightly denticulated, scales of moderate size, ventral scale one-fourth the length of ventral fin; a blackish spot behind the eye, another at the base of the last ray of the dorsal fin, and a third at the lowermost portion of the tail, branchiostegous membrane five rays.

D. 19+10; A. 3+8; P. 14; V. 1+5; C. 13, well developed.

* *Abramis Buggenhagii.* Large-scaled Bream. *Cyprinus Buggenhagii,* Bloch. Part 3, tab. 95. On inspecting the produce of a fishing-rod at the river Lagan, near Belfast, on the 6th of May, 1836, I detected a bream differing from the common species, and secured it for examination. It agreed so fully with Bloch's description of the *Cyprinus Buggenhagii* as to satisfy me of its identity, the only difference consisting in the number of rays in the pectoral fin, 12 being enumerated by him, and 18 appearing in the specimen; several of them, however, being very short, may have escaped Bloch's notice.

The description drawn up from my specimen the day it was procured, is as follows: Length, 5½ inches; depth, 1½ inch; head one fourth of the entire length; diameter of the eye equal to one fourth of the length of the head; scales on the lateral line about 45, about 9 rows between it and the dorsal ridge and 5 rows below it; under point of the caudal fin longer than the upper. Colour of the sides silvery, tinged with blue towards the back; irides very pale yellow; the dorsal, pectoral, ventral, and anal fins nearly transparent, or very slightly tinged with dusky, chiefly towards their extremities; caudal fin pale yellow.

D. 11; P. 18; V. 1+9; A. 20 (first extremely short); C. 18.

This species, which is new to Britain, is stated by Bloch to be found in Swedish Pomerania, in the river Pene, and in the lakes communicating with it*.

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* On my showing this specimen to Mr. Yarrell, he immediately produced from his own collection another example of this species of much larger size, measuring fourteen inches in length, which had been presented to him by a

New to Ireland.

* *Trigla Cuculus*, Bl. Red Gurnard. Of this fish two small specimens, taken at Youghal in the summer of 1835, have been submitted to my examination by Mr. Ball. In both, the second ray of the first D. fin is the longest.

Mugil Chelo, Cuv. Thick-lipped Grey Mullet. The common "mullet" of the north of Ireland is of this species, as are likewise the only two specimens that I have seen from the southern coast.

Gobius gracilis, Jenyns. Slender Goby. From the coasts of Down and Louth I have obtained two specimens of this fish. The difference in colour between them and *Gob. minutus* attracted me at first sight; but I did not examine further, until my attention was directed to them by Mr. Jenyns' description of *Gob. gracilis*, with which they in all respects agree.

* *Crenilabrus rupestris*, Selby. Jago's Goldsinny. In September, 1835, I procured two individuals of this species at Bangor, Down, where they were taken along with *Cren. tinca* and *Cren. cornubicus*.

Salmo eriox, Linn. Bull Trout. The first specimens of this trout which occurred to me were three, about 20 inches in length, that were taken with *Sal. trutta*, in the sea at Donaghadee.

* *Gadus callarias*, Linn. Dorse. Amongst fishes kindly forwarded for my inspection by Mr. Ball are specimens of the *Gad. callarias*, caught at Youghal in the autumn of 1834. On subsequently looking over some captures from Larne, county Antrim, presented without regard to species to the Belfast Museum, I also found one of these fishes.

* *Gadus minutus*, Linn. Poor. From three localities in Down and Antrim I have the *Gad. minutus*, and in the collection of Mr. Ball have recently seen two specimens from the coast of Cork.

* *Motella glauca*, Jenyns. Mackrel Midge. I include here, though unable to see any specific difference between it and *Mot. mustela*. The only Irish specimens I have seen sufficiently minute to be considered *Mot. glauca*, were brought by Mr. Ball from the South Islands of Arran.

Phycis furcatus, Flem. Common Fork-beard. To C. G. M. Skinner, Esq., of Glynn-park, I am indebted for a very fine male specimen of this fish, 25 inches in length, which was caught near Car-

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friend, who caught it in the waters of Dagenham Breach, in Essex, from which place others have since been taken. This bream is at once distinguished from both the other species of British bream, by the much greater thickness of its body.

rickfergus in February, 1836. The chief characters of this species, given in the '*Règne Animal*,' and adopted in the 'Manual of the British Vertebrata,' are, "Sa première dorsale plus relevée, et son premier rayon très élongé, les ventrales deux fois plus longue que la tête," 2nd edit., p. 335. In the first character only as here given my specimen agrees, the third ray of its first dorsal fin being considerably the longest, and the ventrals being only one fifth longer than the head.

* *Platessa pola*, Cuv. Pole. In Belfast market on the 26th of April last, I procured six individuals of this species. They were from 12 to nearly 15 inches in length, and were taken in a trawl-net near Ardglass, in the county of Down. On the 5th of May I obtained a seventh specimen from the same place.

* *Solea lingula*, Rond. Red-backed Sole. In August, 1836, three small specimens of this fish were captured by Mr. Hyndman and myself, when dredging off Dundrum, county of Down.

Anguilla latirostris, Yarr. Broad-nosed eel. Inhabits loughs Neagh and Erne, the river Shannon, &c.

Ammodytes tobianus, Bl. Wide-mouthed Sand-eel. I have from several localities on the Down coast, and from one on that of Antrim.

Syngnathus typhle, Linn. *Syng. æquoreus*, Linn. *Syng. ophidion*, Bloch. The first native specimens of these three species that I have seen were taken on the coast of Cork in 1835, and forwarded for my inspection by Mr. Ball; subsequently I have had all three from the coast of Antrim.

Hippocampus brevirostris, Cuv.? Sea-horse. In July, 1821, a recent specimen of *Hippocampus*, presumed to be this species, was found on the beach at Red-bay, county of Antrim, by William Ogilby, Esq., F.L.S.

Petromyzon planeri, Cuv. Fringed-lipped Lamprey. Specimens procured in the vicinity of Naas, county Kildare, have been presented me by Mr. Ball.

Miscellaneous notes.

Gasterosteus brachycentrus, Cuv. Short-spined Stickleback. In Minster-pool, Lichfield, I captured an immense specimen of this fish in July, 1836.

* *Labrus lineatus*, Don. *Lab. maculatus*, Bloch. *Lab. psittacus*, Risso? On September 26, 1835, I obtained at Bangor, Down, two specimens of a *Wrasse*, which agreed pretty well with the *L. lineatus* of Donovan, a species but little understood. They seemed also identical with the *L. psittacus* of Risso, used as a synonym of the *L. lineatus*

in the works of Mr. Yarrell and Mr. Jenyns; by the latter author it is marked with doubt. At the same time I could not consider these specimens else than the young of *L. maculatus*, an opinion which subsequent examination has tended to confirm, as in the same individual I have seen the lineated marking of *L. lineatus* and the spots of *L. maculatus*. The specimens alluded to as corresponding with Donovan's *L. lineatus* are small, as he describes the species to be; those conspicuously spotted over were large, and the individuals presenting partially both appearances were of an intermediate size; hence it would appear that the *L. lineatus* generally* is the young fish, and the *L. maculatus* the adult. It must be added that specimens of equal size, taken at the same time and place, vary much in colour and in the relative depth of the body. The head too is more elongated in the young than in the mature fish.

In concluding his description of the *Labri*, Pennant observes, " Besides these species we recollect seeing taken at the Giant's Causeway, in Ireland, a most beautiful kind, of a vivid green spotted with scarlet; and others at Bandooran, in the county of Sligo, of a pale green." He adds, " We were at that time inattentive to this branch of natural history, and can only say they were of a species we have never since seen." I have no hesitation in saying that the beautiful kind of a vivid green, spotted with scarlet, was the ordinary *L. maculatus*, and as little in stating my belief that the pale green kind was also the same species. On examining the produce of one rod after a day's fishing, I have seen specimens varying from the palest green to the very darkest tint of this colour.

As the three names under which this fish appears, viz., *L. lineatus*, *L. psittacus* (when it is uniformly green), and *L. maculatus*, apply to the individual rather than to the species, and thus tend to confusion, it seems to me desirable that there should be an appellation under which all the varieties could be brought, and as such I would suggest *Labrus variabilis*.

* *Crenilabrus tinca*, Risso. *Cren. cornubicus*, Risso. *Cren. gibbus*, Flem. In the autumn of 1835 an attentive examination of specimens of the *C. tinca* and *C. cornubicus*, of all sizes, and in a recent state, satisfied me of their identity. The depth of *C. tinca* in proportion to its length being found to vary considerably, though not to the extent described in the *Gibbus Wrasse* of Pennant, together with the general accordance of other characters, disposed me at the same time to believe that the *C. gibbus* is but an accidental variety of it.

* *Leuciscus Lancastriensis*, Yarr. Graining. Several very small individuals of this species occurred to me in the river Leam, near Leamington, in July, 1836.

* *Cobitis tænia*, Linn. Spined Loche. In July, 1836, when

using my net for fresh-water *Mollusca*, in a drain near Guy's Cliff Warwick, a specimen of this minute fish was captured.

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* I have seen some specimens of the largest size entirely green, and displaying the lineation in a darker shade of this colour.

* *Platessa flesus*, Flem. Flounder. The specimen exhibited is from Strangford lough, Down, and presents a malformation of the head, precisely similar to that of the brill (*Pleuronectes rhombus,*) figured in Mr. Yarrell's *British Fishes*, vol. ii., p. 242.

Pleuronectes hirtus, Mull. Muller's Top-Knot. If not inconsistent with the brevity characteristic of the "Zoological Proceedings," I would remark that the fish which I exhibited at the meeting of this Society, on June 9, 1835, under the name of "*Pleuronectes punctatus*, Penn." is identical with the "*P. hirtus*, Mull." of Mr. Jenyns's 'Manual of the British Vertebrata' and the "Rhombus hirtus" of Mr. Yarrell's 'British Fishes,' a circumstance which reference to the synonyma of this species might indeed indicate, but I am induced to notice the subject on account of the specific name "*punctatus*" being applied in both works to a nearly allied species.

My specimen, critically examined when recent, exhibited the following characters, which are unnoticed in the description of *P. hirtus*, given in the above-mentioned works.

P. fin, which is quite perfect, on the upper side 9½ lines long, and containing 6 rays, on the under side 6½ lines long, and having 12 rays. Lateral line on the under side less strongly marked than on the upper, and considerably less curved towards its origin. A bright silver spot, two lines in diameter, at the base of the P. fin on the upper side; irides silvery, clouded with brown: they are described as sea-green by Hanmer, (Penn. Brit. Zool., vol. iii. p. 323, ed. 1812.) It is in allusion to this individual, which I had the pleasure of showing Mr. Yarrell, when in London in June, 1835, that he remarks, "I have a record of one [Rhombus hirtus] that was caught on the coast of the county of Down in Ireland." Brit. Fish. vol. ii. p. 245.

Syngnathus lumbriciformis, Jenyns? Yarrell. As it has recently been discovered that two species of *Syngnathi* have hitherto been confounded under the name of *S. Ophidion*, it should be stated, that those which I brought under the notice of this Society on June 9, 1835, as taken in Strangford lough, are identical with the *S. lumbriciformis*, as described by Mr. Yarrell, (Brit. Fish., vol. ii. p. 340.) It may be added that from Mr. Ball I have since received nine specimens which were taken by him in June, 1835, at the South Islands of Arran, off Clare, and from Captain Fayrer, R.N., several, likewise caught in the same month at Donaghadee.

The dorsal fin and vent in all these specimens, including one from Belfast bay, 19 in number, which are from under 3 to 6 inches long, about one-third of the entire length from the snout, and the head occupying about one-twelfth of the whole length. In these characters they correspond with Mr. Yarrell's description. Mr. Jenyns describes the "dorsal and vent at about the middle of the entire length," and the head "scarcely one-seventeenth" of it. Some of them exhibit ova "in hemispheric depressions, on the external surface of the abdomen, anterior to the vent," as mentioned in the 'Manual of the British Vertebrata,' p. 489.

I cannot conclude without acknowledging the benefit I have received, not only on this, but on all previous occasions, when visiting London, from Mr. Yarrell's liberality, in affording me the unlimited use both of his library and of his extensive collection of British fishes.

* *Trigla pœciloptera,* Cuv. and Val. Little Gurnard.

Amongst a number of fishes submitted to my examination by Mr. Ball, is a Gurnard, apparently of this species, which was taken at Youghal, I believe, along with sprats, (*Clupea Sprattus,*) early in the summer of 1835. In *form,* it agrees in every character by which the *T. pœciloptera* is said to be distinguished, (Cuv. and Val. *Hist. de Pois.*, t. iv. p. 447.) Judging from its present appearance, I have little doubt that when recent it would in *colour* also have corresponded. Its length is 2 inches, D. 10, (last extremely short)—15. P. 10—3, free. V. + 5. A. 15. C. 15.

Second dorsal ray longest; 25 dorsal spines; caudal fin a little forked; lateral line spinous. Thence to D. fin, and to about an equal distance below the line, rough with spinous scales; (this is not mentioned by Cuv. and Val.) lower portion of sides smooth.

With the *T. aspera,* Viviana, as described in the last-quoted work, t. iv. p. 77, and which in length is stated like the *Tri. pœciloptera* to be about 4 inches, the present specimen agrees in many respects, but chiefly differs in the profile being less vertical, in the anterior lobes of the snout, and in the negative character of wanting " une échancrure transversale et profonde," behind the posterior orbital spine; nor with the highest power of a lens can any of the anterior dorsal spines be distinguished as " dentelée," nor the first and second rays of the D. fin as serrated, both of which characters are attributed to *T. aspera**.

In the course of this examination specimens of *T. cuculus,* Bl., *T. lineata, T. hirundo, T. pini,* Bl., and *T. Gurnardus* were before me, *T. lyra* was not available, but the remarkable development of the anterior lobes of the snout in this species would have rendered its comparison with the specimen under consideration unnecessary.

The *T. pœciloptera* has previously been obtained only at Dieppe, where it was discovered by M. Valenciennes.

* *Gobius Britannicus.* British Black Goby.

When at Galway-bay, on the western coast of Ireland, accompanied by Mr. Ball, in June 1834, I captured a species of Goby, whose thicker and more clumsy form at once led me to consider it different from a *G. niger* taken at Youghal, with which I had been favoured by that gentleman. On a recent examination it proved identical with the *G. niger* of Cuvier and Valenciennes, whilst the latter corresponded with the *G. niger* of Montagu (Yarrell's Brit. Fish., vol. i. p. 252.) and Jenyns. This species is considered by Cuv. and Val., but without recourse being had to a comparison of specimens, to be the same as theirs; but the two individuals under consideration, unquestionably distinct, agree so well with the detailed descriptions of those just quoted under the same name, as to leave not a doubt upon my mind as to the propriety of separating them. Amongst other differential characters, they present the following:

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* Since the above was written I have had an opportunity of comparing the *Trigla* here treated of with two specimens of *T. aspera,*—one 3½, the other 4½ inches long, which are part of a collection of fishes, sent last year from Corfu, to the Belfast Natural History Society, by Robert Templeton, Esq., Roy. Art. This comparison served strongly to confirm every thing above stated. The *T. aspera* is admirably described by Cuv. and Val.

G. niger, Mont. (from Youghal.)	*G. niger*, Cuv. and Val. (from Galway.)
Jaws, the lower one the longer.	*Jaws* equal.
Teeth, several irregular rows in both jaws, those of the outer row not very much larger than the others, and, like them, straight and truncated at the summit.	*Teeth*, outer row very much the largest, and curving inwards.
Sulcus, extending from the head to D. fin.	*Sulcus*, wanting.
Papillæ[*] so numerous on the head as to give it the appearance of being delicately carved all over.	*Papillæ* less numerous by half.
D. 6—14. P. 18. V. $\frac{1}{5}$ each. A. 12. C. 15, and some short.	D. 6—16. P. 20—21. V. 5. A. 13. C. 14.

Though of British authors, the *G. niger* of Montagu and Jenyns only is quoted with certainty; the species described as such by Pennant and Yarrell appears to be the same, the exceptions being that two rows only of teeth are attributed to it by the former, and 17 rays are described by the latter as contained in its 2nd D. fin. The *G. niger* of Donovan and Fleming is the *G. Ruthensparii* (*G. bipunctatus*, Yarr.) of Euphrasen.

Bloch's *G. niger* does not agree with either species here treated of; as like Pennant's, it is stated to have but two rows of teeth. It differs, more especially from that of British authors as now restricted, in the jaws being of equal length, the teeth pointed, and having 16 rays in the 2nd D. fin; and from that of Cuv. and Val. in the shortness of the P. fin, a character represented both in his figure and description. The *G. niger* of Risso having the jaws equal, and the teeth curved, approximates it to that of Cuv. and Val., but the number of fin-rays differs considerably.

The species taken at Galway, which is new to the British catalogue, occurs also in the Mediterranean, the collection of fishes from Corfu, alluded to in the note to *Trigla pœciloptera,* as being in the

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[*] With respect to these resembling the *G. geniporus*, as described by Cuv. and Val., t. xii. p. 32, but very different in other characters.

Belfast Museum, containing an individual in all respects, but that of size, quite identical.

Although the *G. niger* of Montagu and Jenyns accords better with the description of Linnæus—consisting only of the number of fin-rays—than the species for which Cuv. and Val. have adopted his name, yet, as several other European Gobies equally well agree with the brief characters in the '*Systema Naturæ*,' and it being necessary to give one of the two which have been confounded together a new name, it appears to me that the species described as *G. niger* in the '*Histoire Naturelle des Poissons*' of the last-named authors,—the greatest and most comprehensive work yet attempted on the subject—should retain the term there given it, and that it is to the *Gobius niger* of British authors that the new appellation should be applied. With this view I propose the name of *Gobius Britannicus*, not to indicate its existence only on the British shores, but in the hope that it may perhaps better than any other term mark it as the species of British authors.

As M. Valenciennes has observed that " M. Yarrell a publié une charmante figure de *nôtre* gobie," (t. xii. p. 18.) it must be added that this figure is more illustrative of my *G. Britannicus* than what I have considered the *G. niger* of Cuv. and Val.; in hypercriticism all it indeed wants to be a perfect representation of that fish is—the lower jaw a little longer, and the teeth smaller, less regular and truncated.

Mr. Owen then laid before the Meeting the following observations upon the structure of the shell in the Water-clam, (*Spondylus varius*. Brod.) ?

Having been led to reflect, while considering the uses of the camerated part of the shell of the *Nautilus*, upon the degree or extent to which that structure might depend upon the mode of growth of the animal and its shell, and how far it was a necessary physical consequence of the increase and change of position of the animal, independently of any special purpose served by the forsaken parts or chambers of the shell, I have paid attention to all the cases that have come under my observation of the formation of chambers in shells, by the secretion, on the part of the animal, of a nacreous layer, forming a new basis of support to the soft parts, and cutting off the deserted portion of the shell from the chamber of occupation.

It is well known that this process is not the only mode adopted to suit the shell to the changing form and bulk or other exigencies of its occupant. In the genus *Magilus* the part of the shell from which the body gradually recedes is filled up by a continuous compact secretion of calcareous matter, and a solid massive elongated shell is thus produced, which would be a great incumbrance to a locomotive mollusc, but is of no inconvenience to an univalve destined by nature to live buried in a mass of lithophytous coral.

In *Helix decollata*, again, the deserted part of the shell, after being partitioned off by the nacreous layer secreted by the posterior part of the mantle, is broken away by some yet unexplained process, and consequently no chambers nor any solid apex of the shell remains.

The retention of the deserted chambers and the interception of certain spaces of the shell by calcareous septa, though not unknown in the gastropodous univalves, is more common in bivalves.

An oyster kept without food will frequently expend its last energies in secreting a new nacreous layer, at a distance from the old internal surface of the concave valve, corresponding to the diminution of bulk which it has experienced during its fast, and thus adapt its inflexible outward case to its shrunken body.

In the calcareous tube exuded from the elongated mantle of the *Septariæ*, Lam., the closed extremity of the tube is divided into chambers by a succession of layers at a distance of half an inch from each other, having a regular concavity towards the open extremity of the shell. These concave septa are composed entirely of the nacreous constituent of the shell; in one example which I have examined, they were six in number; they are thin, smooth, and closely resemble the partitions in the *Nautilus* and *Spirula* save in the absence of the siphonic perforation.

Among Bivalves the *Ostreæ* not unfrequently present shallow and irregular chambers in the substance of the shell: the *Etheriæ* again have vesicular cavities interposed between the testaceous laminæ; but the most constant and remarkable example of the camerated structure of the shell is presented by a large *Spondylus* or *Water-clam,* so called from the fluid which (until lost by slow evaporation) occupies the chambers, and which is visible in the last-formed chamber through the thin semitransparent exposed septum.

In order to examine this camerated structure, and more especially to see how it was modified by the presence and progressive change of place of the adductor muscle, I had a fine specimen sawn through vertically and lengthwise. In the specimen now on the table, which measures eight inches in length, the substance of the concave valve, which is two inches one-third in thickness, at the thickest part includes fourteen chambers, separated from each other by very regularly formed and stout partitions, composed, as in other chambered shells, of the nacreous portion or constituent of the shell. The septa are slightly undulating in their course, but present a general concavity towards the outlet of the shell. Not any of these partitions are, however, continued freely across the shell, but each becomes continuous at the muscular impression, which is near the middle of the shell with the contiguous septa. In general, also, the septa commence singly from the cardinal or upper wall of the valve, and divide into two when about one-fourth of the way towards the opposite or lower wall; the thickness of the undivided part of the septum being equal to, or greater than that of the two divisions or layers into which it splits.

We can readily understand why the septa must necessarily become united together at the point of insertion of the adductor. The muscle never quits its attachment to the valves; while the lobe of the mantle, except in its circumference, and where it is attached to the adductor muscle, must detach itself from the surface of the valve which is about to be partitioned off, when it secretes upon the interposed fluid the new septum or basis of support. It is obvious, therefore, from the conditions under which the partitions are successively secreted, that they must adhere not only to the circumference of the valve, but to the preceding and succeeding septum at the part occupied by the adductor muscle, and for an extent corresponding to its circumference. The progressive change in the position of this muscle by the absorption of the posterior fibres, and the addition of others anteriorly, changes in a corresponding degree the relative position of these subcentral confluent parts of the septa, and a beautiful undulated disposition of the whole chambered part results. If the adductor muscle were a tube instead of a solid mass, the central confluent part of the septa would of course be perforated, and a siphon would result, the calcareous walls of which, from the proximity of the chambers, would no doubt be continuous, as in many fossil *Polythalamous* shells.

A disposition to form chambers is manifested, but in a much less degree, in the smaller flattened or superior valve of the *Water Spondylus*. In the specimen here described there are three chambers, with narrower intervals, and much thicker partitions than in the lower valve. These partitions are confluent opposite the muscular impression, as in the lower valve, and each partition expands from this attachment in an infundibular manner, which reminds one of the *emboitement* of the calcareous parts of the siphon in the *Spirula*.

The secreting power of the lower lobe of the mantle in the *Spondylus* is greater than in the upper; and the layers of nacre which are successively deposited on the cardinal margin push forward in a corresponding degree the upper valve, leaving a heel or *umbo* behind the hinge of the lower valve, which, from the inactivity of the secreting surface of the upper lobe of the mantle, is not opposed by a corresponding *umbo* in the upper valve.

The laminæ, which are deposited in a continuous series of superimposed layers at the hinge of the lower valve, are not continued in a like state of superposition throughout; they soon separate from each other, and do not again unite except at the space corresponding to the adductor muscle, and at the circumference of the valve.

The interspaces of these successive layers of the growing *Spondylus* cannot, from the absence of a medium of intercommunication, serve any purpose hydrostatically with reference to locomotion: it is a singular fact, indeed, that the *Spondylus*, in which the chambered structure is constant, and the *Ostreæ*, and other bivalves, in which it is occasional, are cemented to extraneous bodies by the outer surface of the shell, generally by the concave valve. So that the septa must be regarded as mere dermal *exuviæ* still left adhering to the animal, to which, as a motionless bivalve, they are no incumbrance. It is highly probable that all the chambers are originally filled with fluid, as more or less is found in the outer ones of the specimens brought to this country.

In the *Testaceous Cephalopods* a new structure is added, viz., the siphon, whereby the exuvial layers of the old shell and the deserted chambers are converted into a hydrostatic instrument, subservient to the locomotion of the animal. The operation of the siphon and chambers has been ably explained by Dr. Buckland in the *Nautilus*, where the calcareous inflexible tube protecting the membranous siphon is not continuous. The working of the siphon is, however, less intelligible in those species in which the outer calcareous tube is continued from chamber to chamber, as in the *Spirulæ*, *Orthoceratites*, &c., and it is with respect to camerated shells of this kind that I would ask how far the reasoning suggested by the chambers in the water *Spondylus* may be applicable in their case; and whether a final intention can be clearly traced beyond the diminution of specific gravity occasioned by a large proportion of the shell being converted into receptacles of gas; if indeed we have sufficient evidence to assume that they do not contain a denser fluid, like the *Spondylus*.

Mr. Owen placed upon the table, as illustrative of his observations, sections of both valves of a large specimen of the Water-clam, and also stated that Dr. Bostock had kindly undertaken to submit the fluid contained in the chambers of the shell to a chemical analysis.

Dr. Bostock being present laid before the Meeting the following remarks upon the fluid in question.

Mr. Owen having put into my hands, for examination, a fluid which was obtained from the cavities in the valves of the *Spondylus varius*, I obtained from it the following results.

It was turbid, had an acid saline taste, and a rank disagreeable odour. After standing for twenty-four hours, it deposited a whitish curdy sediment, and became clear and transparent. The clear fluid, amounting to 54^{m}., was poured from the sediment, and was subjected to various tests. It was neither acid nor alkaline; it produced a very copious precipitate with the nitrate of silver, indicating the presence of a large proportion of muriatic acid; the muriate of barytes indicated a slight trace of sulphuric acid, while the appropriate tests of lime, magnesia, and iodine produced no effect. A portion of the fluid was evaporated by a gentle heat, when a quantity of crystals of the muriate of soda was obtained, amounting in weight to very nearly twenty per cent of the fluid. After the removal of the crystals, a little brown matter was left in the capsule, but in too minute a quantity to enable me to ascertain its nature and properties, except that it was not soluble in alcohol; we may, however, presume that it gave the fluid its peculiar flavour and odour.

It appears therefore that the fluid in question consisted almost entirely of a solution of pure muriate of soda, differing therefore, in its chemical constitution, from sea-water.

The sediment mentioned above I returned to Mr. Owen; it appeared to consist of small globular or rather pyriform bodies, probably of an organic origin.

June 27th, 1837.

Thomas Bell, Esq., in the Chair.

A Letter was read addressed to Mr. Gould, from Mr. Thomas Allis of York, in which the writer remarks that the sclerotic ring of the great *Podargus* does not present the slightest appearance of distinct plates, being simply a bony ring; the first instance in which Mr. Allis had observed this peculiarity.

A Letter was also read from His Excellency Hamilton Hamilton, Esq., Her Majesty's Minister at Rio, announcing the present of a *Chilian Eagle* for the Society's Gardens.

Mr. Gray exhibited a specimen of a *Paradoxurus* which had been presented to the Museum of the Society by the President, the Earl of Derby, and for which he proposed the specific name of *Derbianus*.

PARADOXURUS DERBIANUS. *Parad. pallidè fuscescenti-albus, rostri lateribus, strigâ superciliari, notâ in medio fronte et in utroque latere capitis super aures nigris, necnon strigâ ad utrumque latus colli in humeros obductâ, vittis tribus, quatuor, vel quinque transversis in dorso (ad latera angustioribus), annuloque ad basin caudæ, cum hujus dimidio postico. Artubus cinerescenti-fuscis.*

Hab. in Peninsulâ Malayanâ.

Mr. Gray also brought before the notice of the Meeting some Mammalia, which he had lately purchased for the British Museum from a collection made by the late Colonel Cobb in India, among which was an adult specimen of the *Once* of Buffon (Hist. Nat.), on which Schreber formed his *Felis uncia*, which has been regarded by Cuvier, Temminck, and most succeeding authors as a leopard, but which is a distinct species, easily known by the thickness of its fur, the paleness of its colour, the irregular form of the spots, and especially by the great length and thickness of the tail. Mr. Gray observed that a more detailed description of this animal was unnecessary, as it agreed in all particulars with the young specimen described by Buffon.

Two new species of *Sciuroptera*, which agree with the American species in colour, but differed from one another in the size, make, and form of the soles of the feet, were described as follows :—

SCIUROPTERA FIMBRIATA. *Sciur. vellere longo molli cinerescente, nigro variegato; pilis supernè plumbeis, complanatis, pallide fuscis, ad apicem nigris; facie albidâ, regione circumoculari nigrâ, mystacibus longissimis, nigris; mento corporeque*

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subtus albis, caudâ latâ, paululùm decrescente, fulvâ, pilis basalibus ad apicem nigris. Pedibus anticis latis, pollice minuto; pedibus posticis penicillâ latâ ad marginem externum indutis; plantis tuberculo oblongo parvo ad medium marginis externi, tuberculo antico, et tuberculis duobus inæqualibus internè ad partem posticam.

Hab. in Indiâ.

SCIUROPTERA TURNBULLI. *Sciur. vellere brevi, molli, nigrescente, pilis annulum albidum subterminalem exhibentibus; buccis, mento, corporeque subtùs albis; regione circum-oculari, et mystacibus nigris; caudâ angustâ, decrescente, nigrescenti-fuscâ, subtùs pallidiore; pedibus anticis parvulis, pollicibus minutis; pedibus posticis externè vix fimbriatis, plantis angustis sine tuberculis centralibus ad marginem externum, tuberculo attamen anteriori, necnon duobus inæqualibus posticis ad marginem internum.*

Long. 11½ unc.; caudæ, 8 unc.

Hab. in Indiâ.

A new species of *Fox*, nearly allied to *Vulpes Bengalensis*, but evidently larger, Mr. Gray designated as *Vulpes Xanthura*. In describing this species, he remarked, that it had a large gland, covered with rigid brown hair, on the upper part of the base of its tail, very distinctly marked; and that on looking at the tail of the several other species of this genus, as *V. Bengalensis*, *V. vulgaris*, *V. fulva*, and some others, a similar gland was easily recognisable, though it appeared to have been hitherto overlooked.

Mr. Ogilby afterwards characterised a new species of Gibbon (*Hylobates*), which had been presented to the Society many years ago, by the late General Hardwicke, and hitherto considered as the female of the Hoolock. A specimen of the latter species had been presented to the Society at the same time, and from the same locality; but their specific identity was sufficiently disproved, not only by the fact of both specimens being of the same sex, and from our being perfectly acquainted with both sexes of the Hoolock, but likewise by the marked difference of colour and external structure exhibited by the two animals, The greater height of the forehead and prominence of the nose in the new species were pointed out as alone sufficient to distinguish it from all the other Gibbons; whilst its ashy-brown colour and large black whiskers rendered it almost impossible to confound it with the Hoolock, which has fur of a shining black, and a pure white band across the forehead. Mr. Ogilby observed, that we have had two distinct instances of real Apes from the continental parts of India; and referred to various passages of Pliny, in which the Roman naturalist professed to describe different races of human beings from the remote provinces of India, whom he relates to have teeth like dogs, to live among trees, and to converse by frightful screams. These distorted accounts Mr. Ogilby conceives to have been founded upon the vague tales brought back by the few Greek and Roman travellers who at that time penetrated beyond the Ganges, and proposed therefore to call the new Gibbon by the name of *Hylobates Choromandus*, the name of one of the supposed tribes of men described by Pliny. The same gentleman afterwards exhibited and described the skin of a new species of Colobus, or four-fingered monkey from Africa; for which he proposed the specific name of *Colobus leucomeros*, on account of the white colour of the thighs, the rest of the animal being a deep shining black.

Dr. Smith exhibited some small Quadrupeds, forming part of the collection obtained during his recent expedition into South Africa. They consisted of some new or rare species belonging to the genera *Macroscelides, Chrysochloris, Pteromys*, and *Otomys*. Dr. Smith entered into some interesting details respecting their habits, which will be published in his forthcoming work on African Zoology.

July 11th, 1837.

William Yarrell, Esq., in the Chair.

A letter was read from Mr. Hugh Cuming, Corresponding Member, dated Manilla, December 24th, 1836, addressed to the late Secretary, E. T. Bennett, Esq.

Mr. Cuming states in this letter that he is actively engaged in his favourite pursuit, that of collecting objects in various departments of natural history, and he speaks very highly of the assistance afforded him by the public authorities at Manilla in prosecuting his researches. This letter was accompanied by a large box of skins of birds and quadrupeds, part of which were a donation to the Society.

A letter was read from Keith Edward Abbott, Esq., Corresponding Member, dated Erzeroum, May 12, 1837, stating that he had dispatched a box of bird-skins for the Society.

Mr. Martin then laid before the meeting the following observations on the Proboscis Monkey, or '*Guenon à long nez.*' (*Simia Nasalis.*)

The genus *Nasalis*, of which the "Guenon à long nez" of Buffon, (suppl. vii.,) or Proboscis Monkey of Shaw is the type, was founded by Geoffroy St. Hilaire in his '*Tableau des Quadrumanes,*' published in the 'Annales du Muséum d'Histoire Naturelle' for 1812. In this outline of the *Simiadæ*, the genera *Semnopithecus* and *Cercopithecus* are blended together under the latter title; but from this group are excluded two monkeys, the Douc, constituting the type of the genus *Pygathrix* (*Lasiopyga*, Ill.) and the "guenon à long nez". With respect to the genus *Pygathrix* or *Lasiopyga*, founded upon the alleged want of callosities, most naturalists I believe, (aware of the error committed both by Geoffroy and Illiger, in describing from an imperfect skin,) have regarded it as merging into the genus *Semnopithecus*, at least provisionally, until the internal anatomy of its assumed representative be known.

The characters of the genus *Nasalis*, formed for the reception of the "*Guenon à long nez,*" (*Simia Nasica*, Schreb. *Cercopithecus larvatus*, Wurmb,) are laid down as follows:

"*Muzzle* short, forehead projecting, but little elevated; *facial angle* 50°; *nose* prominent, and extremely elongated; *ears* small and round; *body* stout; *cheek-pouches, anterior hands,* with four long fingers, and a short thumb, ending where the index finger begins; *posterior hands* very large, with fingers stout, especially the thumb; *callosities* large; *tail* longer than the body."

At a subsequent period, however, in his 'Cours de l'Histoire Naturelle,' published 1828, Geoffroy, adopting the genus *Semnopithecus*, established by Fred. Cuvier, places the "*Guenon à long nez,*" within its limits, doubtfully it is true, and with the acknowledgment that his genus *Nasalis* has not been generally adopted, but at the same time with a bias in its favour; for observing that the manners of these monkeys are those of the Semnopitheci, he adds,—"Cependant, il ne nous parait encore démontré que le singe nasique soit une véritable semnopitheque, et il est fort possible que lorsque l'espèce sera moins imparfaitement connue, on soit obligé de rétablir le genre *Nasalis*, dans lequel on l'isolait autrefois, mais que n'est pas été admis par la plupart des auteurs modernes."

Setting aside the singular conformation of the nose, so remarkable in the *Simia Nasalis*, its external characters are not different from those of the *Semnopitheci* in general, and it is to be observed that in a second species, lately added by Mr. Vigors and Dr. Horsfield, under the title of *Nasalis recurvus*, the proportions of this part of the face are much diminished, and its form also modified. This species (which though doubted by some as being distinct, is, we believe, truly so) takes an intermediate station between the *Simia Nasalis*, and the ordinary *Semnopitheci* with flat noses, thereby showing that the transition in this particular character is not abrupt; even were it so, an isolated point of this nature does not form a philosophical basis upon which to ground a generic distinction.

So far I have alluded to external characters only; it remains for me to give some account of the anatomical characters of this singular monkey, of which, as far as I can learn, modern naturalists do not appear to be aware.

It would seem that M. Otto*, who described the sacculated form of the stomach in one of the monkeys of the genus *Semnopithecus*, is not the first observer of this peculiarity, for I find that Wurmb, in the Memoirs of the Society of Batavia, notices this point in the anatomy of an individual of the *Simia Nasalis*. After giving some interesting details respecting the habits and manners of the species, he proceeds as follows:—"The brain resembles that of man; the lungs are of a snow-white colour; the heart is covered with fat, and this is the only part in which fat is found. The *stomach is extraordinarily large, and of an irregular form;* and *there is beneath the skin a sac which extends from the lower jaw to the clavicles*." Audebert (with whose work 'Histoire des Singes,' Geoffroy St. Hilaire was well acquainted,) refers to this account of Wurmb; yet Geoffroy does not, as far as I can find, advert to these points, unless indeed his statement of the presence of *cheek-pouches* be founded on the observation of a sac extending from the lower jaw to the clavicles; and if so, he has made a singular mistake, for the sac in question is *laryngeal*, and the words as they stand cannot be supposed to mean any thing else; I know of no monkey whose cheek-pouches extend beneath the skin to the clavicles; but the laryngeal sacs in the *Orang* and *Gibbons*, and also in the *Semnopitheci* themselves are remarkable for development. It is evident, however, from the silence of M. Geoffroy St. Hilaire respecting the laryngeal *sacculus* in the Proboscis

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* See his paper in the "Nova Acta Academiæ Cæsareæ," vol. xii.

Monkey that he was not aware of the real character of the structure to which Wurmb had alluded. With respect to the structure of the stomach, neither Wurmb nor M. Otto drew any general inferences from it; they described it as it presented itself in single species, and regarded it in an isolated point of view; it is, if I mistake not, to Mr. Owen that we owe its reception as an anatomical character, extant throughout the *Semnopitheci*. (See his paper on the subject, in the Proceedings for 1833, and in the Transactions of the Zoological Society.)

This is perhaps scarcely the place in which to introduce any speculations, but I cannot help observing that the same structure may be expected in the genus *Colobus*, which in form is a mere repetition of the genus *Semnopithecus*, except that the thumb of the forehands, which in the latter begins to assume a rudimentary character, is in the former reduced to its lowest stage of development. In both genera the teeth precisely agree, and present early that worn surface which is the consequence of a continued grinding *rodent-like* action, upon the leaves and herbaceous matter which constitute the chief diet of the animals.

The statement of Wurmb respecting the stomach and laryngeal apparatus of the Proboscis Monkey I have lately been enabled to confirm.

Among the specimens in store brought within the last few months from the Gardens to the Museum occurred an example of the Proboscis Monkey, in brine, but in a state of decomposition which induced me to lose no time in making such an examination as its condition would admit, being indeed extremely anxious to ascertain the relationship of this curious monkey to the other groups of Indian *Simiadæ*, groups to which I have been lately directing my attention.

The specimen in question was a female, measuring from the *vertex* to the *ischiatic callosities* one foot nine inches.

The body was meagre and slender, and the limbs long and slim; the contour of the animal being very unlike that displayed in the mounted specimen in the Museum of the Society, which gives the idea of great robustness.

The abdominal cavity had at some former period been opened and the liver removed, in doing which the stomach had been cut, but not so much as to spoil it entirely. In every essential point this *viscus* is the same as in all the *Semnopitheci* hitherto examined. It consists of a large cardiac pouch with a strong muscular band, running as it were around it so as to divide it into two compartments, an upper and lower, slightly corrugated into *sacculi*; the *cardiac apex* of the upper pouch projects as a distinct *sacculus* of an oval form, and is not bifid. From this *upper pouch* runs a long and gradually narrowing *pyloric portion*, corrugated into *sacculi* by means of three muscular bands, of which one is continued from the band dividing the cardiac pouch into two compartments. The elongated *pyloric portion* sweeps around the *lower cardiac pouch*.

The *œsophagus* enters the first compartment about four inches from its terminal apex, giving off a radiation of longitudinal muscular fibres over the central portion of the first compartment. The second or lower compartment is the largest and deepest, and is embraced by longitudinal muscular fibres from the œsophagus to the division-band, but unlike the same compartment in the stomach of the *Semnopithecus Entellus*, it is very slightly sacculated; indeed it can scarcely be said to be so at all. The admeasurements are as follow:

	feet.	inches.
1st compartment, round the greater curve......	1	6
2nd compartment, measured in the same manner	1	8½
From the entrance of the œsophagus, round the 2nd compartment to the division-band	1	1
The same measurement, round the 1st compartment..................................	0	8½
Length of *pyloric portion*	2	1
Circumference at base......................	0	9½
Circumference just above pyloric orifice........	0	5½
Length of small intestines	18	0
Length of large intestines	6	2

The average diameter of the small intestines, lying flat, was ¾ of an inch; the ileum, however, was rather more, but not quite an inch.

The *cæcum* is of a pyramidal figure, 5 inches in length, pointed, and somewhat sacculated by three slight muscular bands. Circumference at the base, 5¼ inches.

The large intestines are puckered into *sacculi* by two longitudinal bands; they commence large, becoming gradually smaller, the bands in the meantime gradually disappearing. Advancing towards the *rectum* the intestine again enlarges, and here, to the extent of 2½ feet from the anus, all trace of bands is lost.

The circumference of the large intestines at their commencement is 3½ inches.

The lungs consisted of two lobes on each side, the fissure dividing the lobes on the right side being the most complete.

The laryngeal sac was of enormous size, and single. It extended over the whole of the throat, and advanced below the clavicles, communicating by means of a single but large opening with the larynx. This opening is on the left side, between the *larynx* and the *os hyoides*, and is capable of being closed by means of a muscle arising from the anterior apex of the *os hyoides*, and running down the central aspect of the *trachea* to the *sternum*. The contraction of this muscle draws the *os hyoides* down, so as to press upon the edge of the thyroid cartilage.

There were no cheek-pouches nor any traces of them.

The teeth were much worn, but the fifth tubercle of the last molar tooth of the lower jaw was very distinct.

Mr. Gould afterwards called the attention of the Meeting to the common British Wagtail, and stated his firm conviction of its being distinct from the *Motacilla alba* of Linnæus. He proposed for it the name of *M. Yarrellii,* and observed, that it might be easily distinguished from the continental one, with which it had hitherto been confounded, by an attention to the following characters.

The pied wagtail of England (*M. Yarrellii*) is somewhat more robust in form, and in its full summer dress has the whole of the head, chest, and back of a full, deep, jet black; while in *M. alba*, at the same period, the throat and head alone are of this colour, the back and the rest of the upper surface being of a light ash-grey. In winter the two species more nearly assimilate in their colouring; and this circumstance has doubtless been the cause of their being hitherto considered identical; the black back of *M. Yarrellii* being grey at this season, although never so light as in *M. alba*. An additional evidence of their being distinct (but which has doubtless contributed to the confusion), is, that the female of *M. Yarrellii* never has the back black, as in the male; this part, even in summer, being dark grey; in which respect it closely resembles the other species.

July 25th, 1837.

E. S. Hardisty, Esq., in the Chair.

Mr. Waterhouse directed the attention of the Meeting to several small Quadrupeds which he considered undescribed, and which he proceeded to characterize as follows:

Phascogale flavipes. *Phasc. fuscescenti-flava, pilis nigris intermixtis; corpore subtùs pedibusque flavis; gulâ albidâ; caudâ, corpus quoad longitudinem excellente, nigrescenti, subtùs flavâ, pilis minutis et adpressis vestitâ.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin....	4	8
——— *caudæ*........................	3	5
——— ab apice rostri ad basin auris	1	0
——— *tarsi digitorumque*..............	0	9¾
——— *auris*........................	0	6

Hab. North of Hunter's River, New South Wales.

The fur of this animal is moderately long, not very soft, and consists of hairs of two lengths. On the back the shorter hairs are of a palish ochre colour at the apex, and the longer hairs are black: on the sides of the body and limbs the ochreous hue prevails, the black hairs being less numerous: the under parts of the body are of a yellow colour, inclining to white on the throat and mesial line of the belly; all the hairs are of a deep gray at the base both on the under and upper parts of the body. The general hue of the head is gray, a tint produced by the mixture of black and white hairs; the eyelids are black: the hairs immediately above and below the eye are of a yellow-white colour, as are also those of the upper lip and lower part of the cheeks. The moustaches are moderately long; the hairs are black at the base and grayish at the apex. The ears are of moderate size, and have the hinder portion emarginated; they are furnished externally with minute hairs, those on the inner side being chiefly of a yellow colour. The feet are of an uniform deep ochre colour. The tail is about equal in length to the body and half the head, and is furnished with small and closely adpressed hairs, between which rings of scales are visible; on the apical portion of the tail the hairs are longer, slightly exceeding one eighth of an inch in length; the hairs on the under side of the tail are of a deep buff colour, and those of the upper side are black and yellow, excepting at the apex, where all the hairs are black.

The teeth in this species agree in number with those of *Phascogale penicillata*, and in fact scarcely differ in any respect, making allowance for the difference in the size of the animals. The two front incisors of both upper and lower jaws are perhaps smaller in proportion, and the third false molar in the lower jaw is decidedly smaller in proportion, being scarcely visible unless the gum be removed.

The last molar of the upper jaw is of the same narrow form, and placed obliquely as in *P. penicillata*.

Not having a skull of *P. penicillata*, I am guided in my observations by M. Temminck's figure in the 'Monographies de Mammalogie.'* Upon comparing the skulls of *P. flavipes* with the same figure, the resemblance is great; in the smaller animal, however, the skull is somewhat narrower in proportion (especially the fore part); the nasal bones are not so broad at their base.

PHASCOGALE MURINA. *Phasc. cinerea levitèr flavo lavata; corpore subtùs pedibusque albis; caudâ, corpus quoad longitudinem excellente, pilis albis valdè minutis et adpressis vestitâ.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin....	3	0
——— *caudæ*	2	7
——— ab apice rostri ad basin auris.....	0	8½
——— *tarsi digitorumque*	0	7¾
——— *auris*	0	4½

Hab. North of Hunter's River, New South Wales.

This species may be readily distinguished from the former by its much smaller size, being in fact rather less than the common mouse (*Mus musculus*), or less than half the bulk of *P. flavipes*. The fur is rather short and soft; its general hue is gray with a faint yellowish tint, the longer hairs on the upper parts of the body being gray at the apex, and the shorter hairs tipped with pale yellow or cream colour; the feet and under parts are white, as are likewise the sides of the face beneath the eye. All the hairs of the body are of a deep slate colour at the base. The tail is covered with very minute closely adpressed silvery white hairs. The dentition is evidently that of an adult animal: the canines and anterior incisors of both upper and lower jaws appear to be smaller in proportion than in *P. flavipes*.

MUS HAYI. *Mus auribus majusculis, rostro obtuso, tarsis elongatis, caudâ corpus cum capite quoad longitudinem excellente; corpore suprâ fusco; lateribus flavis; pedibus corporeque subtùs albis; pectore notâ flavescente notato.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin....	3	8
——— *caudæ*	3	10
——— ab apice rostri ad basin auris	0	11⅔
——— *tarsi digitorumque*	0	11
——— *auris*	0	6⅔

Hab. Morocco.

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* In M. Temminck's figure the three lateral incisors of the upper jaw are represented as being close to the anterior pair. There is, however, a space between the anterior incisors and the lateral, both in *P. penicillata* and in the two species here described.

This species, which is rather larger than *Mus musculus*, was presented to the Zoological Society by E. W. A. Drummond Hay, Esq., Corr. Mem., after whom I have taken the liberty of naming it.

Mus Alleni. *Mus auribus parvulis, caudâ corpore cum capite, longiore, corpore suprà nigrescenti-fusco, subtùs cinereo; pedibus obscuris.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin....	1	9½
——— *caudæ*........................	1	11
——— ab apice rostri ad basin auris	0	7
——— *tarsi digitorumque*.............	0	7¼
——— *auris*	0	3

Hab. Fernando Po.

This species is less than the harvest mouse (*Mus messorius*), and of a deeper colour than the common mouse (*Mus musculus*), being in fact almost black. The ears are smaller in proportion, and more distinctly clothed with hairs. The tail is very sparingly furnished with minute hairs. The tarsi are covered with blackish hairs above; the toes are dirty white.

I have named the species after Lieut. W. Allen, R.N., Corr. Mem. by whom it was discovered and presented to the Zoological Society.

Mus Abbottii. *Mus auribus mediocribus, caudâ corpore cum capite longiore: corpore suprà intensè fusco, subtùs canescente pedibus obscuris.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin....	1	6
——— *caudæ*........................	1	11
——— ab apice rostri ad basin auris	0	6½
——— *tarsi digitorumque*.............	0	7⅓
——— *auris*	0	4

Hab. Trebizond.

This species is less than the harvest mouse (*Mus messorius*), and of a deeper colour than the *Mus musculus*, in which respects it agrees with *Mus Alleni*; from this, however, it may be distinguished by the tail being longer in proportion, the ears larger, and the tarsi more slender. It was presented to the Zoological Society by Keith E. Abbott, Esq., Corr. Mem., after whom it has been named.

Mr. Gould then continued the exhibition of Mr. Darwin's Birds, a series of which were upon the table. One only among them was considered new, a species belonging to the genus Pyrgita from the island of St. Iago. Mr. Gould characterized it under the name of

Pyrgita Iagoensis. *Pyr. summo capite, et maculâ parvâ gulari intensè nigrescenti-fuscis, strigâ superciliari, collo, humeris dorsoque intensè castaneis, hujus plumis strigâ fuscâ centrali notatis; alis caudâque brunneis, tectricibus alarum minoribus albis,* *qui color fasciam transversam efficit; lineâ angustâ a nare ad oculum; genis corporeque subtùs albis, hoc colore in cinereum ad latera transeunte; rostro, pedibusque fuscis.*

Long. tot., 5 unc.; *caud.*, $2\frac{1}{4}$; *alæ*, $2\frac{1}{2}$; *rost.* $\frac{1}{2}$; *tarsi*, $\frac{5}{4}$.

Hab. St. Iago.

Obs. This is in every respect a typical *Pyrgita*, and rather smaller than the common species, *P. domestica*.

Mr. Gould then called the attention of the Members to some specimens of *M. alba* and *M. Yarrellii*, which presented in a very decided manner the distinctions referred to by him at the last Meeting. He afterwards characterized a new species of that genus under the name of

Motacilla leucopsis. *Mot. facie, vertice, plumis auricularibus, gulá, abdomine, crisso, rectricibus caudæ duabus externis albis; primariis, tertialibus, tectricibus majoribus minoribusque alarum albis; notâ pectorali semilunari, occipite, collo, dorso, humeris, uropygio, rectricibusque octo caudæ intermediis nigris, primariis ad apicem et internè nigrescenti-fuscis; rostro pedibusque nigro-fuscis.*

Long. tot., 7 unc.; *alæ*, $3\frac{3}{4}$; *caud.*, $3\frac{3}{4}$; *rost.*, $\frac{3}{4}$; *tars.*, 1.

Hab. India.

August 8th, 1837.

Richard Owen, Esq., in the Chair.

A letter was read from J. B. Harvey, Esq., of Teignmouth, Devonshire, Corresponding Member, addressed to W. Yarrell, Esq., accompanying a donation to the Society of some very beautifully preserved specimens of *Radiata* and Fish.

Mr. Gould then called the attention of the Meeting to the concluding part of his work on the Birds of Europe, which he laid on the table as a donation to the Library; and he expressed the gratification which he felt at having brought to a successful termination a publication upon which he had been engaged with almost unremitting attention for more than five years.

The Chairman, in returning the thanks of the Meeting to Mr. Gould for his donation, spoke of the advantages accruing to the Society from being connected with a naturalist whose works on Ornithology were justly held in the highest estimation both here and on the Continent.

Mr. Gould then characterised the following birds from the Society's collection as new species:

Corvus nobilis. *Corv. corpore toto nitidè nigro, non sine fulgore purpureo ac viridi præcipuè ad alas ac scapulas, necnon ad gulam pectusque ubi plumæ sunt elongatæ et lanceolatæ; caudâ latâ et gradatâ; rostro pedibusque nigris.*

Long. tot. 25 unc.; *rostri*, $3\frac{1}{4}$; *alæ*, 18; *caudæ*, 11; *tarsi*, 3.

Hab. Mexico.

Obs. This beautiful species is a true raven, and may be distinguished from the European, and from that inhabiting the United States of America, by the more metallic lustre of its plumage, by its more lengthened and slender bill, the greater length of its primaries, and the more cuneate form of its tail.

Ortyx guttata. *Ort. capite cristato; summo capite nigrescenti-brunneo; fronte et lineâ supra-oculari usque ad occiput tendente pallidè brunneis, singulis plumis ad apicem pallidioribus; gutture nigro in longum lineis albis exiguis striato. Plumis auricularibus, lineâ utriusque colli lateris ad nucham coalescente, castaneo-brunneis; dorso rufo-brunneo, plumis singulis lineis obscuris subfuscis delicatè fasciatis, strigâ centrali albescenti-cervinâ interpositâ. Scapularibus alæque tectricibus majoribus magìs brunneis, notis conspicuis nigerrimis, transversìm et irregularitèr striatis, interspatiis guttulis undulatis repletis: plumis scapularibus, tectricibusque majoribus et minoribus notam*

39. 2. 28. 6.

triangularem cervinam ad apicem ostendentibus; uropygio pallidè luteo obscurè nigro guttato; caudâ fuscescenti-nigrâ notis fasciisque rufescenti-cervinis irregularitèr ornatâ; pectore abdomineque intensè fuscis, hôc colore in rufum ad latera transeunte; singulis plumis ad apicem notam albam triangularem plùs minùsve nigro cinctam exhibentibus; rostro nigro; pedibus nigrescenti-brunneis.

Long. tot., 10 unc.; *rostri*, $\frac{3}{4}$; *alæ*, $5\frac{3}{4}$; *caudæ*, 3; *tarsi*, $1\frac{5}{8}$.

Obs. This is one of the largest species of the genus, and is from the Bay of Honduras. Presented to the Museum of the Society by Captain Barlow.

THAMNOPHILUS FULIGINOSUS. *Thamn.* Mas. *Capite, cristâ, genis, gutture et pectore nigerrimis. Dorso, alis, corpore subtùs, caudâque cinerescenti-fuliginosis, hujus pogoniis internis lineis angustis transversis albis fasciatis; rostro pedibusque nigris.*

Fœm. *Summo capite, dorso alisque castaneo-fuscis; loro, lineâ super oculos, plumis auricularibus, colli lateribus, gutture, corpore subtus et caudâ intensè cineraceo-cœruleis; plumis singulis lineis cinerescenti-albis fasciatis; pogoniis internis rectricum albis lineis fasciatis; rostro pedibusque nigro-brunneis.*

Long. tot., $7\frac{1}{2}$ unc.; *rostri*, $1\frac{1}{8}$; *alæ*, $3\frac{1}{2}$; *caudæ*, 3; *tarsi*, $1\frac{1}{4}$.

Hab. Demerara.

Obs. This species is distinguished from the other members of the genus by its robust and powerful frame. The female is of the same size as the male, or a trifle larger in all its proportions.

Mr. Gould from his own Collection presented to the Society, and characterised a fourth species of his genus *Dendrocitta,* under the name of

DENDROCITTA RUFIGASTER. *Dend. facie, summo capite plumis auricularibus, gutture, pectoreque brunneis, hôc colore gradatim in rufo-brunneum transeunte apud abdominem; lateribus crissoque nitidè castaneis; occipite et nuchâ cinerescenti-albis; dorso rufo-brunneo; uropygio tectricibusque caudæ superioribus cinerescentibus; rectricibus caudæ duabus intermediis nigrescenti-griseis, ad apicem nigris, utrisque proximis nigris, ad basin nigrescenti-griseis; rectricibus cæteris nigris; alis nigerrimis, primariis omnibus ad basin (externis exceptis) albis, qui color notam conspicuam in alis mediis efficit; femoribus griseis; rostro nigro; pedibus brunneis.*

Long. tot. $16\frac{1}{2}$ unc.; *rostri*, $1\frac{1}{2}$; *alæ*, $7\frac{1}{2}$; *caudæ*, $11\frac{1}{2}$; *tarsi*, $1\frac{1}{8}$.

Hab. India.

Obs. This species is nearly allied to, but differs from *Dendrocitta leucogaster* in its shorter tail, and in the less extent of the black colouring on the tips of the two centre tail feathers, in the chestnut brown colouring of the under surface, and in its thickened and more robust bill.

Mr. Ogilby exhibited skins of two species of his new genus *Kemas*, and directed the attention of the Society to their generic and specific characters. Mr. Ogilby observed, that the genus in question occupied an intermediate station between the goats and the *Oryges*, agreeing with the former in its mountain habitat and general conformation, and with the latter in the presence of a small naked muzzle and four teats in the females. Of the two species exhibited, one was a fine male specimen of the *Iharal*, presented by James Farrall, Esq., and the other a new species from the Neilgherry Hills, known to Madras and Bombay sportsmen by the name of the Jungle Sheep, and which Mr. Ogilby had long looked for. In form and habit of body, as well as in the character of the horns, this animal is intermediate to the *Iharal* and *Ghoral*; the specific name of *Kemas Hylocrius* was proposed for it in allusion to its local appellation. The body is covered with uniform short hair, obscurely annulated like that of most species of deer, and more nearly resembling the coat of the Ghoral than that of either the *Iharal* or *Chamois*, the other species of which the genus is at present composed. The horns are uniformly bent back, surrounded by numerous small rings, rather flattened on the sides, with a small longitudinal ridge on the inner anterior edge: the ears are of moderate length, and the tail very short. Mr. Ogilby entered at some length into the characters and relations of the genus *Kemas*; he observed that naturalists and commentators had greatly puzzled themselves to discover the derivation of the word *Kemas*, and the animal to which the ancient Greeks applied that name. Among others, Col. H. Smith applies it to the *Chira*, with which the ancients certainly were not acquainted: but Mr. Ogilby observed, that the root, both of the Greek *Kemas* and the modern *Chamois*, was manifestly traceable to the German word *Gems*, which is still the name of the Chamois eastward of the Rhine, and which the Dutch colonists have transferred to the Cape *Oryx* (*Oryx capensis*).

August 22nd, 1837.

Thomas Bell, Esq., in the Chair.

Mr. Owen brought before the notice of the Society, through the kindness of Mr. Edward Verreaux, the cranium of an Orang Outang (*Simia Wurmbii*, Fisch.), exhibiting an intermediate or transitional state of dentition, there being in the upper jaw the first or middle incisors, and first and second molares on each side belonging to the permanent series, and the lateral incisors, the canines, and the first and second molares (which are replaced by the bicuspides) belonging to the deciduous series; and in the lower jaw, both the middle and lateral incisors, and first and second molares on each side belonging to the permanent series, and the second left lateral deciduous incisor (not yet shed), the deciduous canines, and the first and second deciduous molares.

The permanent teeth, which were in place, corresponded in size with those of the great *Pongo* of Wurmb, and prove that the Orang differs from man in the order of succession of the permanent teeth, having the second true molar, (or fourth if the bicuspides are reckoned as molars), in place before the appearance of the permanent canines.

Mr. Owen remarked, that the intermaxillary suture still remained unobliterated in the immature cranium exhibited, and he conceived that the ultimate obliteration might be caused by the increased vascularity of the parts during the protrusion of the great laniary teeth. In the Chimpanzee this obliteration takes place at a much earlier period.

Although the marks of immaturity, and consequently those which impress an anthropoid character upon the skull of the Orang, were generally present in the head exhibited, yet, on a comparison of it with the skull of a younger Orang in which all the deciduous teeth were retained, an approach to the condition of the mature cranium might be observed in the greater protrusion of the intermaxillaries, the lengthening of the maxillary bones, a thickening and greater prominence of the external and superior boundary of the orbit, an enlargement and thickening of the malar bone and zygoma, in the commencement of the development of the cranial ridges, and in the widening and deepening of the lower jaw.

Mr. Owen then directed the attention of the Meeting to an exceedingly interesting preparation of a fœtal Kangaroo, with its accompanying uterine membranes, upon which he proceeded to offer some observations. He remarked, that in a paper read before the Royal Society in 1834, he described the fœtus and membranes of a Kangaroo (*Macropus major*), at about the middle period of uterine gestation, which in that animal lasts thirty-eight days. In this instance the condition of the membranes, and the relation of the fœtus to the mother, were essentially such as are found to exist throughout the ovo-viviparous reptiles, with the exception of there being no trace of the existence of an allantois. Mr. Owen, in order to determine whether an allantois was developed at a subsequent period of the growth of the embryo, dissected very young mammary fœtuses of different marsupial animals, as the *Kangaroo*, *Phalangista*, and *Petaurus*; and finding in them the remains of a *urachus* and umbilical vessels, he stated that "it would appear that an allantois and umbilical vessels are developed at a later period of gestation, but probably not to a greater extent than to serve as a receptacle of urine." (Phil. Trans., 1834, p. 342.)

The examination of a uterine fœtus of a Kangaroo kindly placed at Mr. Owen's disposal by Dr. Shearman, and exhibited on this occasion to the Society, has proved the accuracy of this prevision. The chorion, which enveloped and concealed the fœtus, was a sac of considerable capacity, exceeding probably by ten times the bulk of the fœtus and its immediate appendages, and adapted to the smaller cavity of the uterus by being disposed in innumerable folds and wrinkles. It did not adhere at any part of its circumference to the uterus, but presented a most interesting modification not observed in the previous dissection of the Kangaroo's impregnated uterus, viz., that it was in part organized by the extension of the omphalo-mesenteric vessels upon it from the adherent umbilical sac. The fœtus was further advanced than the one previously described in the Philosophical Transactions. The digits on the hinder extremities were distinctly formed. The umbilical chord extended nearly three lines from the abdominal surface of the fœtus; the amnios was reflected from this point, to form the usual immediately investing tunic of the fœtus; and, beyond the point of reflection, the chord divided into a very large superior vascular sac, organized by the omphalo-mesenteric vessels, corresponding in all respects with the vitelline sac described and figured in Mr. Owen's first paper; but below the neck of this sac there extended a second pyriform sac, about one-sixth the size of the vitelline sac, having numerous ramifications of the umbilical vessels, and constituting a true allantois. This sac was suspended freely from the end of the umbilical chord: it had no connexion, at any part of its circumference, with the chorion, and consequently was equally free from attachment to the parietes of the uterus in which the fœtus was developed*.

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* The following note has been communicated by Mr. Owen to be appended as a postscript to the above remarks. "Having been anticipated in the description of my preparation, so far as relates to the allantois, by M. Coste, I here subjoin, by permission of the Committee of Publication, a statement of the circumstances which enabled that embryologist to announce the discovery of the allantois to the Academy of Sciences. In a recent work on Embryogeny, M. Coste* has stated that the Marsupiata differ from other Mammalia in the absence of an allantois,—a statement which appears to have arisen from a misconception of my memoir in the Philosophical Transactions for 1834, in which, although the allantois was

* *Embryogenie comparée*, p. 118.

Mr. Charlesworth then exhibited a series of specimens of the paper nautilus, in several of which injuries to a very considerable extent had been repaired with new substance agreeing in every respect with the original shell; affording the most decisive evidence that the animal by which they were constructed possessed the same reparative powers as other testaceous molluscs. It would appear from the observations of Captain Rang, who had recently repeated at Algiers the experiments originally undertaken by Madame Jeanette Power at Messina, that the Poulp does not fill up the breaches artificially produced in its habitation by a deposit of shelly matter, but with a transparent diaphragm, which has neither the texture, whiteness, or solidity of the original shell. This fact, in connection with the specimens exhibited to the Meeting, appeared to Mr. Charlesworth strongly to confirm the opinion entertained by Mr. Gray, De Blainville, and others, of the parasitic character of the genus *Ocythöe*.

Mr. Owen remarked, that he could not admit the validity of the line of argument adopted by Mr. Charlesworth, because the differences in the nature of the reproduced portions might depend upon the particular part of the shell in which the perforation or fracture had been effected, and a consequent difference in the reproductive powers of the corresponding part of the mantle.

not developed in the embryo, whose dissection is there figured, (Pl. VII. fig. 1.), yet the evidences of the ulterior development of an allantois in different marsupial genera, are described in the text, (p. 338, 342.) I therefore took the opportunity of showing to Dr. Coste during his visit to England the fœtal Kangaroo with the allantois now before the Society; and Mr. Coste having expressed some doubts respecting my determination of the two appended sacs, we together dissected the fœtus, and found that the vessels ramifying on the larger sac, which I had before described as the umbilical vesicle, had the usual disposition and connections within the abdomen of omphalo-mesenteric trunks, corresponding with the figure above-cited in the Philosophical Transactions, and that the allantois was continued from an urachus, such as is represented in figs. 6, 7 and 8, pl. VII., Philos. Trans., 1834."

September 12th, 1837.

Dr. Bostock in the Chair.

Some observations were made by Dr. Andrew Smith, Corresp. Member, on the necessity for a revision of the groups included in the Linnean genus *Squalus*.

Dr. Smith commenced with stating that in the course of his examination of the Sharks which he had obtained while at the Cape, he found that although they could all readily be referred to the genus *Squalus*, as defined by Linnæus, yet there were many forms among them which would not admit of being placed in any of the subdivisions proposed by Cuvier. This led him to perceive the necessity of either altogether remodelling Cuvier's groups, or of establishing additional ones for the reception of the new species. After mature consideration, he determined upon the adoption of the latter course, finding the new forms so distinct and numerous that they could not with propriety be included in any divisions which only ranked as sub-genera.

Dr. Smith stated that he could not attempt to indicate the higher groups of the family of *Squalidæ*, but he was satisfied that all the sub-genera of Cuvier would receive such alterations and additions as would raise them to the rank of sub-families. In the very first subgenus *Scyllium*, he had detected nine distinct minor groups, most of which included several well-marked species. Since fixing upon names for these groups, he had learned that several of them had been described as genera about a month previously by Prof. Müller and Dr. Henle of Berlin, and he had consequently adopted their nomenclature in preference to the terms under which it was his intention to have characterized them, with only this difference, that he regarded these divisions as sub-genera rather than genera.

Dr. Smith enumerated the sections above referred to of the genus *Scyllium* as follows:

1. *Scyllium*, restricted, includes four species, *Scyl. stellare*, Linn., *Squalus Canicula*, Bloch, *Scyllium capense*, Smith, *Scyl. bivium*, id.
2. *Catulus*, Willoughby, (three species,) *Squalus Canicula*, Linn., *Scyl. marmoratum*, Bennett, *Catulus Edwardii*, Smith.
3. *Poroderma*, Smith, (four species, all found in the Cape seas,) *Scyllium Africanum*, Cuv., *Poroderma pantherinum*, Smith, *Por. submaculatum*, id. *Por. variegatum*, id.
4. *Ginglymostoma*, Müller and Henle, (one species) *Squalus Gata*, Garra.
5. *Chiloscyllium*, Müller and Henle, (two species) *Scyllium plagiosum*, Bennett, *Le Squale dentelé*, Lacep.
6. *Stegostoma*, Müller and Henle, (two species) *Squalus fasciatus*, Bloch, *Squal. maculatus*, id.

7. *Hemiscyllium,* Müller and Henle, (one species) *Squalus ocellatus,* Bloch.

8. *Chrossorhinus,* Müller and Henle, (one species) *Squalus lobatus,* described in Phillips's Voyage to Botany Bay.

9. *Pristiurus,* Bonaparte, (one species) *Scyllium melanostomum,* Bonap.

Some drawings were exhibited by Dr. Smith, of the forms presented by the teeth of the species composing several of the above sections, and he remarked that on a future evening it was his intention to lay before the Society some further observations upon other groups of the cartilaginous fishes.

Professor Müller of Berlin being present confirmed the views entertained by Dr. Smith as to the number of divisions which might properly be made of the family *Scyllium,* several of which he had already published, as mentioned by Dr. Smith. As to the rank which these groups should hold in a systematic arrangement, he considered this a point upon which we are hardly in possession of sufficient evidence to justify a decided opinion.

September 26th, 1837.

Richard Owen, Esq. in the Chair.

Two small quadrupeds from the Society's collection were exhibited by Mr. Waterhouse, who stated that he believed them to be undescribed species. The first was characterised as

Galago Alleni. *Gal. auribus permagnis, digitis perlongis; vellere intensè plumbeo, rufescente lavato; corpore subtùs flavo lavato.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin......	8	1
———— *caudæ*..........................	10	0
———— *auris*..........................	1	2½
Latitudo *auris*..........................	0	11
Longitudo *pollicis* antipedum...............	0	6
———— *digiti longissimi*..................	1	1
———— *pollicis* pedum posticorum	0	7
———— *digiti longissimi*..................	1	2
———— pedis postici a calce ad apicem digitorum	2	11

Hab. Fernando Po.

Obs. This specimen, which has four incisors in the upper jaw, and six in the lower, is about the same size as the *Galago Senegalensis*, but may be readily distinguished from that species by the greater size of the ears, (the length of which is equal to the distance between the tip of the muzzle and the base of the ear,) and the great length of the fingers and toes. In the colouring there is also a difference, *G. Senegalensis* being grey, washed with yellow, whereas *G. Alleni* is of a deep slate grey, all the hairs of the upper parts being of a rusty yellow at the apex, or, as on the fore legs, rusty at the tip. The under parts of the body are of a paler hue than the upper, the hairs being of a dirty yellow colour at the tip; but like those of the upper parts, they are of a slate grey for the greater portion of their length: on the throat and chin each hair is whitish at the apex. The hairs covering the feet are of a deep brown colour. The tail is dusky brown.

The animal here described was presented to the Zoological Society by Lieut. Wm. Allen, R.N., Corres. Memb.

Pteromys (Sciuropterus) Horsfieldii. *Pter. fuscus, pilis flavescenti-fuscis crebrè intersparsis; corpore subtùs flavescenti-albo, genis et patagio lumbari ad marginem rufescenti-flavis; caudâ subtùs nitidè ferrugineâ; auribus mediocribus.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin	9	6
——— *auris*	0	$7\frac{1}{2}$
——— *tarsi digitorumque*	1	5

Obs. This species is of a larger size than the *Pteromys sagitta*, from which it differs in having the ears larger in proportion; the tail more bushy and of an uniform bright rust colour beneath; the margin of the flank skin is of a reddish yellow colour, as are also the sides of the face below the eye. On the upper parts of the body the fur is of a deep brown, each hair being grey at the base; the interspersed longer hairs, which are abundant, are of a bright brown or reddish-yellow colour at the apex. The general tint produced by this mixture is rufous brown. On the under parts of the body the hairs are of a yellow or yellowish white colour, and not grey at the base.

The specimen from which the above description is taken was presented to the Zoological Society by the Earl of Derby, and is either from Java or Sumatra. I have taken the liberty of naming it after the author of the "Zoological Researches in Java," &c.

Mr. Gould exhibited from his Australian collection of Birds two species of the genus *Platycercus*, which he considered new: for one of these he proposed the specific name of *hæmatonotus*, from the red spot upon its rump; and for the other, which he had very recently received, and which he remarked was one of the most beautiful species of the genus hitherto discovered, that of *hæmatogaster*.

PLATYCERCUS HÆMATONOTUS. *Plat. summo capite, fronte, genis, nuchâ pectoreque smaragdino-viridibus; dorso fuscescenti-viridi; uropygio coccineo; articulo humerali, alâ spuriâ et pogoniis externis primarium ad partem basalem nitidè cæruleo-nigris, notâ sulphureâ humerali. Remigibus majoribus et minoribus, rectricibusque caudæ duabus intermediis viridibus, hoc colore in cæruleum transeunte ad apicem, apicibus ipsis nigro-fuscis; rectricibus reliquis ad bases viridibus, ad apices et ad pogonia externa cineraceo-albis; abdomine medio flavo; femoribus obscurè cæruleo-viridibus; crisso cineraceo-albo; rostro corneo; pedibus fuscis.*

Long. tot. 11 unc.; *alæ* 5; *caudæ* $6\frac{1}{2}$; *tarsi* $\frac{5}{8}$.

PULLUS *intra annum primum, ab ave adultâ differt partibus, quæ in hâc smaragdino-viridibus, in illo cinerescenti-viridibus; necnon crisso haud coccineo, abdomine haud flavo; ast primariis nonnullis, secondariisque ad bases albis.*

Hab. Novâ Cambriâ Australi.

Obs. This species unites *Platycercus* to *Nanodes*, and is in fact so directly intermediate between these genera in size and other characters, that it is difficult to decide to which group it should be referred; but I am induced to include it among the *Platycerci*.

PLATYCERCUS HÆMATOGASTER. *Plat. fronte facieque cæruleis; summo capite, nuchâ, plumisque auricularibus flavescenti-cinereis; pectore cinereo tincto brunneo; plumis auricularibus ad partem superiorem stramineis; uropygio, tectricibusque superioribus caudæ cerinis; articulo humerali pallidè cæruleo; primariis intensè fuscis et ad apicem acutis; secondariis tectricibusque majoribus violaceo-cæruleis; tectricibus minoribus alisque ad partem superiorem intensè coccineis; lateribus tectricibusque inferioribus pallidè flavis; abdomine medio nitidè coccineo; plumis duabus intermediis caudæ ad bases pallidè olivaceo-viridibus ad apices in cæruleum transeunte. Reliquis plumis ad bases intensè cæruleis ad apices in album transeunte; rostro corneo; pedibus fuscis.*

Long. tot. 12 unc.; *alæ* $\frac{3}{8}$; *caudæ* 7; *tarsi* $\frac{3}{4}$.

Hab. Novâ Cambriâ Australi.

Mr. Gould also exhibited, on the part of Mr. Burton, a new species of Kingfisher, from the collection at Fort Pitt, Chatham, belonging to the genus *Ceyx*, of Lacepède. Mr. Burton had proposed to characterize it under the specific name of *microsoma*.

CEYX MICROSOMA. *Ceyx subcristata, capite caudâque suprà, nuchâ et humeris rufis; strigâ ab oculis ad nucham (ponè oculos leviter, apud nucham intensè) dorso et uropygio hyalino splendentibus; alis brunneis, pogoniis remigum internis rufo marginatis, tectricibus punctis hyalinis ornatis: infrà pallidè rufa hôc colore apud ventrem dilutiore; mento, gulâ et strigâ auriculari albidis: rostro prægrandi, aurantiaco. Pedibus rubris.*

Long. corp. $4\frac{1}{2}$ unc.; *capitis* 2; rostri ab apice ad rectum $1\frac{1}{2}$; *caudæ* 1.

Hab. in Indiâ Maderaspatanâ.

Mr. Gould afterwards exhibited, on the part of the same gentleman, a specimen of the genus *Caprimulgus*, supposed to be the female of *C. monticolus*, and of which Mr. Burton had furnished the following description:

CAPRIMULGUS MONTICOLUS, Franklin*. Fœmina? *Capr. pallidior mari: remigibus maculâ notatis rufâ, ubi mas gaudet albâ; jugulo rufo tincto; caudâ rufâ nigro fasciatâ et inspersâ, rufo rectrices apud exteriores dominante, caudâque externâ maris albo omninò carente.*

Formâ et staturâ mari simillimâ.

Hab. in Indiâ septentrionali. In Musæo Medico-militari, Chatham.

Obs. The general form, character and colouring of this specimen harmonize so perfectly with those of *Caprimulgus monticolus*, that I have thought it safe to consider it as the female, until local observation or dissection shall have decided the question: at all events, it is new, and hitherto undescribed.

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* Proceedings of the Committee of Science and Correspondence (Zool. Soc.), 1830–1.

A species of the genus *Carduelis*, also from the collection at Chatham, was characterized by Mr. Gould as

CARDUELIS BURTONI. *Card. fronte et regione circum-oculari pulchrè roseis; vertice genisque nigris; corpore obscurè fuscescenti-roseo, alis externè nigris, singulis plumis plùs minùsve albo ad apicem notatis; alá spuriá albá; rectricibus caudæ nigris; duabus, intermediis ad apicem albis, duabus proximis longius ad apicem albis, reliquis albá notá internè ad basin excurrente, ornatis; rostro, pedibusque pallidè fuscis.*

Long. tot. $6\frac{1}{4}$ unc.; *rostri*, $\frac{5}{8}$; *alæ*, $3\frac{7}{8}$; *caudæ*, $2\frac{1}{2}$; *tarsi*, $\frac{3}{4}$.
Hab. Himalaya.

Obs. I am indebted to the collection of Fort Pitt, at Chatham, for the knowledge of this very fine species of *Carduelis*: the specimen here characterized is, as far as I am aware, unique. It departs in some respects from the other members of the genus, particularly in the robust form of the beak, which is slightly angulated at the base: the form of its wings and tail, together with their peculiar markings, however, clearly points out that it is only an aberrant species of that group.

I have been induced to give this fine bird the specific appellation of *Burton*, for the purpose of paying a just compliment to Staff-Surgeon Burton, for the warm interest he took in the formation of the Fort Pitt collection, and for the readiness he has at all times evinced to aid in any way the advancement of zoological science.

October 10th, 1837.

Richard Owen, Esq., in the Chair.

A paper was read by Colonel Sykes "On the identity of the " Wild Ass of Cutch and the Indus, with the *Dzeggetai* (*Equus Hemionus* of Pallas)."

The author commences with observing, "it is somewhat strange and anomalous, that an animal known to and named by Aristotle, and noticed by Ælian, Pliny, and subsequent authors, down to our own day, an animal remarkable for its beauty of colour, the antelope lightness of its limbs, and the tales of its swiftness, and its classic locality, should have attracted so little the attention of men of science, that it was not even figured* until Pallas put it before the public. The magnificent work of Buffon does not boast a representation of it; and as the proceedings of the scientific body at Petersburg are necessarily rare, and confined to some few great public libraries, it was in fact scarcely known to the European world, even though Pennant copied Pallas's account in 1793. To remedy this defect we are indebted to M. Isidore Geoffroy Saint Hilaire, who took advantage of the importation by M. Dussumier, of a female into the Paris Menagerie, to have a correct coloured figure made to accompany his paper, 'Sur le Genre Cheval,' in the Nouvelles Annales du Muséum d'Histoire Naturelle†. But even in this case the defect of it not appearing before the public in a sufficiently accessible and popular form, limited the benefit that should have resulted from M. Saint Hilaire's zeal and talents. Though I have been an amateur of Natural History for a great part of my life, I must confess that it is to a private copy of M. St. Hilaire's paper, obligingly presented to the Zoological Society of London, that I am indebted for my first view of a coloured representation of the *Dzeggetai*, and it was only last week that this fell into my hands. I have been thus particular in noticing the want of readily accessible figures of animals (for my observation will apply to many other animals beside the *Dzeggetai*,) as this want of means to correct my judgement led me into the belief that a recently imported Wild Ass of Cutch, which was sent to England by an old friend of my own from Bombay, was a different species from the *Dzeggetai* of Pallas, which is represented as inhabiting the desert regions between the rivers Onon and Argun, on the southern parts of Siberia, through Tartary, even to the frontiers of China and Thibet; and I might have been justified in my supposition had I attached the same weight that

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* In the *Novi Commentarii Academiæ Scientiarum Petropolitanæ*, t. xix. 1774, p. 417.

† t. iv. p. 97.

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some naturalists do, to the opinion that the geographical distribution of animals is regulated by mean temperature, the *Dzeggetai* of Pallas inhabiting the borders of the arctic regions, the Wild Ass of India the borders of the torrid zone. There might be yet further question for doubt, did we take the description of colour from Griffith's edition of the 'Règne Animal,' in which it is stated 'there is a *black* dorsal line which enlarges on the crupper. In winter the hair is very long; but of a smooth and shining appearance in summer. The colour of the body is an *uniform* light bay, but in winter it partakes more of red*;' and the forehead is described as 'flatted and narrow.'

"M. St. Hilaire, who describes from the life, says 'Les deux couleurs dominantes de l'*Hemione*, le blanc et l'isabelle passent l'une à l'autre par nuances insensibles sur le ventre, vers sa partie inférieure, et sur le cou, presque à égal distance de son bord supérieur, et de son bord inférieur. Sur la tête au contraire, le blanc n'occupe guère que le museau et la gorge, le cou étant presque entièrement isabelle. Sur les membres, contrairement à ce qui a lieu sur le corps, c'est le blanc qui domine, &c.' Again, 'Tout ce système de coloration est rebassé supérieurement par une *bande* dorsale longitudinale, *non pas noire* comme on l'a dit, mais d'un brun legèrement roussâtre.' And now with respect to the *change* of colour with the season of the year, instead of getting redder in winter it would appear from the observations of M. Fred. Cuvier, that the 'animal a le poil plus *gris*, plus *pale* et plus long l'hiver que l'été.' These discrepancies would have afforded to those strongly disposed to multiply species, some feeble grounds (particularly when I come to notice a point of conformation in the head,) for asserting the right of the Wild Ass of Cutch to the dignity of a specific character, for it will be borne in mind that M. St. Hilaire describes his specimen, which was a native of Cutch; while in Griffith's Cuvier the description refers to the *Dzeggetai*, whose habitat is from southern Siberia to Thibet and China; and we do not want instances of equally trifling discrepancies having been made available for multiplying species.

"And now with respect to the animals in the Zoological Gardens, the one being called Dzeggetai, and marked on its ticket Mongolia and Asia; the other known positively as the Wild Ass from Cutch. The first, a male, has been in the possession of the Society since the 3rd of March 1832, and was presented to the Society by Captain Glasspoole, R.N. Its birth-place is not known, but from the nature of Captain Glasspoole's maritime duties, which carried his ship along the coasts Cutch, Scind, and Persia, there is little doubt of its being from one of these states; and as it is absolutely identical with the animal I am about to speak of, my own judgement is formed on the subject. This creature has long been known in the gardens from its great beauty, its fine condition, its vivacity, and its wickedness. The second animal was sent while quite a colt by an old friend of mine, the British Minister in Cutch, to the Military Auditor General of Bombay. It was allowed for a considerable period, (pending an answer from me, whether or not I would accept of it,) to amuse the children; it was permitted to attend at breakfast-time, and eat from the table; but manifesting as it grew up symptoms of ill nature (no doubt having been heartily teased,) it was put on board the Marquess of Hastings, Captain Clarkson, and brought to England:—there cannot therefore be any doubt respecting its origin and its history; and having one animal certainly from Cutch, we have a positive standard of comparison. Like the preceding it is a male, and with the exception of being younger and smaller, and with a less short and glossy coat, it is identical with it in every feature; and these two agree in all essentials with M. St. Hilaire's very able and minute description and coloured figure of a female in the Paris Menagerie. There is one point only in which there may be a difference, and there are two or three others in which there is a difference. M. St. Hilaire does not state whether the forehead be flat or prominent; and though the figure represents it to be somewhat raised, it is certainly not so much so as in the animals in the Zoological Gardens: with them the frontal development is a very prominent feature; such feature, however, being opposed to the descriptions in Griffith's 'Règne Animal.' M. St. Hilaire also mentions another character, which it required some little perseverance to discover in the larger animal in the Zoological Gardens, the smaller animal being absolutely destitute of it. He states that on the isabella colour on the limbs, there are transverse lines or very narrow bands of a darker isabella, in the manner of the markings of the Zebra. These lines had never been observed by the keepers in the Zoological Gardens, and for sometime I could not discover them; but at last with a reflected light I could just discern the transverse lines noticed by M. St. Hilaire, but I was not so fortunate with the smaller animal. M. St. Hilaire, on the authority of M. Geoffroy-Chateau, who sent to him a description of a male Dzeggetai in Cross's Menagerie in London, states that there was a disposition in the dorsal band on that animal, by lateral projections at the withers, to form a small cross, like that of an ass. There is not the slightest trace or manifestation of such a thing in either of the animals in the Zoological Gardens. Finally, M. St. Hilaire speaks of the blending by insensible degrees of the isabella and white markings of the Dzeggetai, but in our animals the lines of demarcation are sufficiently strong.

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* Quarto edit., vol. iii. p. 460.

"M. St. Hilaire's humorous description of the habits of kicking of the female at Paris, is laughably exact with respect to our animals, particularly the smaller one. I had sent one of the keepers into its yard with some hay, to throw down before it, to keep it stationary (at least its body) while I took a rapid sketch of it with the assistance of the camera lucida. The moment the hay was thrown down, the creature turned round and commenced flinging out most vigorously for some time, although the man was gone, and the odd beast all the time was gravely munching its hay. So petulant were both these creatures, that after having sketched them I could not get any of the keepers to take their measurements, nor could I succeed in obtaining them, but by getting them thrown down, which I declined to do. With respect to the swiftness of the Wild Ass of Cutch, without quoting from Griffith 'that it runs literally with the rapidity of lightning,' or from M. St. Hilaire, who says, 'it appeared to him to go as fast as the best race horses;' I will mention in confirmation of its extraordinary swiftness, that my friend Major Wilkins, of the Cavalry of the Bombay Army, who was stationed with his regiment for years at Deesa, on the borders of the Run or Salt Marshes, east of Cutch, in his morning rides used to start a particular Wild Ass so frequently that it became familiar to him, and he always gave chase to it; and though he piqued himself upon being mounted on an exceedingly fleet Arabian horse, he never could come up with the animal.

" It now remains to express my reasons for believing with M. St. Hilaire, that the Wild Ass of Cutch is the same as the *Equus Hemionus* of Pallas. There are certainly sundry discrepancies in the accounts of the two animals; in the colour, the dorsal line, the forehead, and above all in the difference of mean temperatures between the northern and southern habitat of the species. But all the discrepancies of descriptions may be easily remedied by the supposition that animals examined by different individuals at different seasons of the year, did really slightly differ, owing to the difference of seasons; and some part of the differences may be attributed to inattention to terms. There are slight discrepancies between M. St. Hilaire's description and mine, both taken from life, and the animals from the same locality; no one therefore can doubt their identity. In the main features the Dzeggetai and the Wild Ass of Cutch perfectly agree; and with respect to the extent of geographical distributions, I have elsewhere proved that it is no bar to the identity of species inhabiting mean temperatures varying nearly 40° of Fahr., and separated by half the earth in longitude. But in the case of the Dzeggetai and the Wild Ass of Cutch, there are not any insuperable difficulties of geographical position. The Wild Ass of Cutch and the north of Goojrat, is not found further south in India than Deesa on the banks of the Bunnas river, in lat. about 23° 30′, nor have I heard of it to the eastward of the 75° of longitude in the southern side of the Himalayan Mountains. In Cutch and Northern Goojrat it frequents the salt deserts and the open plains of Thoodpoor, Jaysulmer, and Bickaneor. By swimming the Indus it may communicate through Scind and Buloochestand with Persia; and in Persia it evidently exists from Sir Robert Kerr Porter's descriptions; to the east and north of Persia abuts upon the peculiar localities of the Dzeggetai, through Bucharia to the deserts of Cobi, where it delights in the salt marshes, as it does in India, and thence to Tartary, Thibet, and South Siberia. The latitudinal range may be from 35° to 40°; but the longitudinal range is necessarily very great, probably from the 45° to the 130° or 140°, or 95° of longitude; but in case it ever was found in Cappadocia it would have a still greater range, or 100°. If it be desirable to believe that the animal migrates according to the season, there do not appear to be any insuperable physical impediments; and its extraordinary fleetness and hardihood would sanction the belief in its making very long journeys, even to the banks of the Indus. But the animal of

Cutch and the Burmass river, would have to cross the Indus and its branches to get to the north and west; and as they are seen at all seasons of the year in their Indian localities, I am quite content to believe that the Dzeggetai of Southern Siberia and the Wild Ass of Cutch are identical in species, and yet do not wander further than is necessary for forage from their respective localities. I say little of the advantage of domesticating this beautiful animal in Europe, but I do say that it would be worthy of the reputation of the great Society, to continue the attempt until success crowned its efforts.

" I have yet one other object in laying this paper before the Zoological Society. I have stated the difficulties under which I laboured in obtaining the means to enable me to assist my judgement with respect to form. Language is sufficiently precise to enable us to judge correctly of descriptions of colour in animals; but the most lucid mind, and the most studied terms and phraseology, cannot give just impressions of the contour and outlines, in fact the ensemble of animals. I would therefore through the medium of the Society's Proceedings call the attention of naturalists, amateurs, and ordinary travellers, who cannot even draw at all, to the means the camera lucida affords them of recording outlines with celerity and precision. I exhibit to the Society five sketches of the two Wild Asses in the Zoological Gardens; and though I do not profess not to be able to draw, I do not hesitate to say that I can give much more correct figures of animals by its means than without it. It may be objected that the restlessness of animals renders the use of the camera lucida abortive; but I say that the rapidity with which the lines may be traced with the pencil, enable a person using it to make twenty sketches, where the draughtsman would otherwise make but one, and it will be hard if more than one of the twenty do not prove just. The five sketches exhibited were made in a few minutes; and only one proved abortive, making six attempts in all; and yet I have not used the camera lucida since 1830. The outlines have been subsequently traced in ink. I trust therefore this notice may lead to its more extended use; a use in natural history that cannot fail to be beneficial to the science. One word in conclusion. I have been a declaimer in the Transactions of this Society against the modern habit in natural history of generalization from a limited number of facts; and in pursuing the above inquiries I met with a new proof of the risk to truth of such a system. In the history of the Domestic Ass it is stated, 'The countries most suitable to the Ass are those of the south. Accordingly it is in Persia, Egypt, and Arabia that the strongest and finest varieties of this species are to be found. Some, very different from the small and feeble natives of our climates, almost equal the Horse in magnitude and stature. Spain also possesses some fine races of the Ass, which are also occasionally to be found in the southern provinces of France; as *we advance northward*, the animal diminishes in size and becomes more and more difficult of preservation.' Opposed to this is the fact, that in Western India, which it will be admitted is sufficiently far to the south, the Asses are not much larger than good-sized Newfoundland dogs. They are used in droves to carry small loads of salt or grain; they are also used by the pot-makers to carry their clay; and they are always seen, as in Europe, associated with gipsies."

The Prince of Musignano exhibited to the Meeting a lithographic print of the Gigantic Salamander, brought by Dr. Siebold from Japan, and preserved alive at Leyden.

Mr. Gould called the attention of the Meeting to a collection of Birds from Australia and the adjacent islands, belonging to the Raptorial Order, and upon which he proceeded to offer the following observations.

"My attention during the last few days having been directed to the Raptorial Birds of Australia and the adjacent islands, and my own collection from those parts being particularly rich in the birds of this order, I am induced to lay before the Society a slight sketch of all the species found in that portion of the globe, and to exhibit to the Meeting a few which I conceive to be now for the first time made public. From our limited knowledge, however, of this vast continent, my observations will more particularly refer to the birds of the southern parts of Australia and Van Diemen's Land, these being the districts which up to the present time have been most extensively explored.

"Most of the forms now exhibited will be found to bear a striking resemblance to those inhabiting Europe; indeed, the similarity is so strikingly obvious as to leave no doubt of the influence of temperature on the form of animals.

"A remarkable deficiency, and that a very important one, is the total absence of any of the *Vulturidæ*, or of any form by which this family might be represented. It is true that a bird has been described by Dr. Latham under the name of 'New Holland Vulture;' but this bird is now almost universally admitted to belong to a totally different order, that of the *Rasores*. I have placed an example of this singular species on the table, an examination of which will enable any member present (who has not before had an opportunity of inspecting it,) to judge of the impropriety of assigning it a place among the *Raptores*. The nearest approach to the *Vulturidæ*, said to be from New Zealand, and brought from thence by Captain Cook, is the *Polyborus Novæ-Zelandiæ*, the *Falco Novæ-Zelandiæ* of Dr. Latham: now as I conceive that the specimen brought home by Captain Cook will prove to be identical with those so frequently transmitted from the Straits of Magellan, as I am not aware of any other specimen except Captain Cook's having been received direct from New Zealand, and, moreover, that the form is strictly confined to America and its adjacent islands, some mistake may have arisen in labelling the specimen brought home by our celebrated navigator, a circumstance which, if my opinion be correct, has involved the history of the species in considerable confusion.

"Of the genus *Aquila* only one species has as yet been discovered, viz., the *Aquila fucosa* of Cuvier, which doubtless represents in Australia the Golden Eagle of Europe, from which it may be readily distinguished by its more slender contour, and by its lengthened and wedge-shaped tail.

"Of the genus *Haliaetus* or Sea Eagles, there are four species, the largest of which, clearly the analogue of the European *H. albicilla*, is one of the species which I consider to be new, and which from the wedge-shaped form of its tail I would characterise as *H. sphenurus*. I cannot but consider the form of the tail in this species as particularly interesting, inasmuch as it is a character peculiar to all the species of Eagle inhabiting Australia, although in a less degree to the others than to the present species. The second is a small species, described by Messrs. Vigors and Horsfield in the Linnæan Transactions as *Hal. canorus*, the European representatives of which are not so clear to me as those just alluded to. The third is the *Haliaetus Calei* of Messrs. Vigors and Horsfield, of which a single specimen exists in the collection of the Linnean Society, and which I should be rather inclined to assign to the genus *Astur* than to that of *Haliaetus*. In size this species equals the Common Buzzard, but has the rounded wing and several other characters peculiar to the genus *Astur*. The fourth is the White-breasted Eagle of Dr. Latham, a species inhabiting the continent of Australia and Van Diemen's Land. At a cursory glance this powerful bird might be said to represent the *Haliaetus leucocephalus* of northern Europe and America, and although I cannot but admit their resemblance, I discern characters sufficiently distinct to warrant its separation into a new genus. I am not, however, prepared to make this division at the present moment; still I am of opinion this bird will prove to be one of a group ranging between *Haliaetus* and *Pandion*, of which latter genus the Osprey of Europe may be regarded as the type, and of which a single species inhabits Australia. This bird appears to accord most accurately with European specimens excepting in its smaller size; and if this should ultimately prove to be identical with our bird, it may then be said to be universally distributed over the Old World. The Osprey of America, on the contrary, presents us with some slight differences, which being constant, may I think be safely regarded as specific.

"Of the genus *Falco*, the *Peregrinus* is replaced by a species most nearly allied to and hitherto considered identical with that bird: the experienced eye of the ornithologist will, however, readily distinguish an Australian specimen when placed among others from various parts of the globe, so that there will be but little impropriety in assigning to it a separate specific name. As, however, my engagements have not allowed me to make that minute examination which is necessary to determine the point, I defer for the present affixing a new specific name for this species. The Hobby, so familiar as a European bird, is represented by the Falcon, for which I now propose the specific name of *rufiventer*, as I believe it to be undescribed. The third species, which I have provisionally followed Messrs. Vigors and Horsfield in placing among the true Falcons, is the *Falco Berigora*, whose lengthened and slightly-formed tarsi indicate a difference in structure, which may ultimately prove to be generic. The *Cerchnis* *cenchroïdes* (*Falco cenchroïdes* of Messrs. Vigors and Horsfield,) exhibits a beautiful analogy with the Common Kestril of our island, but although nearly allied possesses several important and permanent differences.

"The great variety of changes to which the members of the genus *Astur* are subjected, has led to vast confusion, and it is only by a minute examination of the numerous examples in my collection in various stages of plumage, that I have been able to determine the species with satisfaction to myself; and if I have found it necessary to consider as identical two or three species of this genus characterised by Messrs. Vigors and Horsfield, I feel confident that it was owing to the absence of sufficient materials at the time the Linnean collection was so ably named by those gentlemen, that they were described as distinct.

"My attention has of course been directed to the great difference in size which exists between the males and females, and the various changes from youth to maturity which occur in the members of the genera *Astur* and *Accipiter*, and I must now call the attention of the members present to the beautiful analogy which exists between the *Accipiter torquatus* and the *Astur approximans* of Messrs. Vigors and Horsfield, of which several examples are on the table; I say analogy, because it is in colour alone that so great a similarity exists between them. These gentlemen having applied the names of *approximans* and *fasciatus* to two birds which I believe to be synonymous with the *Falco radiatus* of Dr. Latham, whose description was taken from a young bird, I retain the name of *Astur approximans* in preference to *radiatus*, from the near approach of these two birds to *Accipiter torquatus*. It will, perhaps, not be out of place to say a few words on the difference in structure of these birds, which in outward appearance offer so close a resemblance to each other. The females in both these minor groups far exceed the males in size, and both groups appear with a trifling deviation to be subject to the same changes of plumage; while in their structure they exhibit considerable differences, the chief of which are the more delicate, slender, and lengthened form of the legs of *Accipiter*, the great prolongation of the middle toe, and the square or forked form of the tail. On comparison it will be found that the centre toe of the little male *Accipiter* on the table is fully as long as that of the male *Astur approximans*, a bird nearly double its size; that the tarsi in the latter bird are comparatively shorter and more robust; and that the middle tail-feathers are the longest, giving a rounded form to that organ.

"It may be truly said that Australia abounds in anomalies, witness its Black Swan and White Hawk, which latter bird has not a little puzzled me, and I am not yet satisfied as to whether it be not a permanent albino variety of another species, examples of which are now on the table with a corresponding number of birds in the white plumage. Much difference will be found in their size, but this may be readily accounted for by the difference of size in the two sexes.

"The males and females of the white birds agree so accurately in their measurements with those in the grey plumage, as to induce me to believe that they are identical; and after a close examination I am also led to consider the *Astur Raii* of the Linnean Catalogue as the young of the same species.

" Of the genus *Milvus* my collection contains two species, and two more beautiful representatives of the two species inhabiting Europe cannot be imagined; for one of these, whose affinities ally it closely to the Common Kite of England, I would propose the name of *Milvus Novæ-Hollandiæ*; and for the other, which is equally allied to the *Milvus ater,* that of *M. aterrimus.*

" The bird which has hitherto been considered as identical with the *Elanus melanopterus* of Africa, is evidently distinct from that species; an unerring difference may be found in the jet black spot on the white part of the under surface of the wing; for this hitherto undescribed species I would propose the name of *notatus.*

"One species of Harrier only, but a very interesting one, inasmuch as it represents there the *Circus rufus* of Europe, has come into my possession. I believe the female of this species to be the *Circus affinis* of Messrs. Jardine and Selby; but as the male has not yet been characterised, and moreover differs very much from the female, to which alone the name of *affinis* would apply, I propose to drop that appellation and to give that of *Jardinei* instead.

" On examining the family of *Strigidæ* or Owls, we cannot but observe the deficiency which exists in some of the subgenera, and the abundance of others; thus while we have never seen any birds belonging to the genera *Bubo, Otus, Scops,* &c., we have numerous species of the restricted genera *Strix* and *Noctua*: the name of *Noctua,* however, having been applied by Linnæus to one of the tribes in Entomology, ought not perhaps to be adopted; that of *Athene,* proposed by M. Boje, and employed by some German naturalists, may be used in its stead.

" Four species of this genus are now on the table, the two largest of which are new to science. For the largest I would propose the name of *Athene strenua,* and for the other that of *A. fortis.* The third has been characterised by Messrs. Vigors and Horsfield as the *Noctua Boobook,* and the *Noctua maculata* of these gentlemen seems to be identical with it. For the fourth and last species of the genus, which is from Van Diemen's Land, and which is evidently distinct from either, I propose the name of *leucopsis,* from the white colouring of its face. The species of the genus *Strix* which I have called *delicatus,* together with my *Strix cyclops* and *Strix castanops* and the *Strix personata* of Messrs. Vigors and Horsfield, may be said to be closely allied, but distinct species.

" In conclusion it may be remarked that the birds belonging to the Raptorial Order inhabiting Australia and the adjacent islands are extremely few in number, when compared with those found in other countries; at the same time, as our knowledge of this part of the world is very limited, the number will in all probability be considerably increased as these countries become more fully known to us.

" At present the species are twenty-six in number, and are distributed as follows.

1	True Eagle	*Aquila.*
4	Sea Eagles	*Haliaetus.*
1	Osprey	*Pandion.*
4	Falcons	*Falco.*
3	Hawks	*Astur* and *Accipiter.*
3	Kites	2 *Milvus* and 1 *Elanus.*
1	New form allied to *Pernis.*	
1	Harrier	*Circus.*
8	Owls	*Strix* and *Noctua* or *Athene.*"
26		

October 24th, 1837.

Richard Owen, Esq., in the Chair.

The Prince of Musignano read a short communication upon the Long-tailed Trogon (*Trog. resplendens* of Gould).

Through the exertions of M. Gonzales, Minister of the United States of Central America, at Washington; and Mr. Rebello, who represented the Brazilian government in that city, the Prince succeeded in procuring some slight information respecting the above species, the most beautiful of the Trogon family.

The Quesalt, the native name of this species, is a rare bird, and very shy in its habits; it is confined to restricted limits, being solely found in a peculiar section of the mountainous district of Vera Paz in the province of the same name, now forming one of the five independent states constituting the Federal republic of Central America. A single instance is on record of its having been domesticated. It builds its nest in the shape of a barrel or bag, open at both ends, by which means injury to its long tail-feathers is avoided. The Prince stated that he had communicated the present notice of the history of the Long-tailed Trogon to an American Journal some years since, and that so long as the year 1826, he had proposed that the specific name of *Paradiseus* should be given to the species.

Mr. Gray exhibited a drawing of a new species of the genus *Tetrapturus*, in the British Museum, which had been obtained at the Cape, and for which he proposed the specific name of *Herschelii*.

Mr. Gray afterwards called the attention of the Meeting to some pieces of chalk, which he had recently found in the cliffs at Brighton, exhibiting perforations made by the *Patella* and *Pholas*, and presenting appearances which he considered to have been produced in the case of the latter genus by the rotatory action of the valves.

The remarks of Mr. Gray elicited considerable discussion as to the manner in which certain molluscous genera penetrate limestone rocks and other hard substances, a phænomenon which Mr. Owen thought could not be explained upon the supposition of its being exclusively caused by a rotation of the valves, but that it was chiefly due to the mechanical influence of the currents of water produced by the vibratile *cilia* of the animal, as noticed by Mr. Garner in a communication made to the Society in 1835.

Mr. Martin exhibited a new Bat from Fernando Po, belonging to the genus *Rhinolophus*, which he characterised as

RHINOLOPHUS LANDERI. *Rhin. vellere molli, et pulchrè castaneo-*

rufescente; auribus acutis, patulis, erectis, ad latus exterius emarginatis, et lobo rotundato accessorio instructis; prosthemate duplice; anteriore bidentato cum scypho parvulo ad basin anticam, hôc ferro-equino membranaceo circumdato; prosthemate posteriore ad basin transversìm sinuato, ad apicem acuto; ferro-equino membranaceo, lato, margine libero anticè bifido; pollice brevi, gracili, in membranâ subtùs per dimidium incluso: ungue parvulo; antibrachiis robustis; cruribus gracilibus; patagiis nigricantibus.

	unc.	lin.
Longitudo corporis cum capite	1	$4\frac{1}{2}$
———— *caudæ*		9
———— *aurium*......................		$7\frac{1}{2}$
———— *antibrachii*	1	$7\frac{1}{2}$
———— *cruris*		8
———— *calcanei*		$4\frac{1}{2}$
Prosthematis longitudo		2
Alarum amplitudo	9	

Habitat in Insulâ Fernando Po.

"This beautiful little species of Bat is a genuine *Rhinolophus*; the nasal appendages consist of a horse-shoe, a crest, and an elevated leaf. The horse-shoe is broad with indications of a double furrow; its outer margin is free and bifid anteriorly. In its centre is placed a little cup-like depression with an elevated rim, from the back of which rises a bifid crest not much elevated: the larger apex is the posterior of the two. On each side of this crest and behind it, the skin continued from the horse-shoe, and forming the base of the leaf, is furrowed by two deep but unequal *sulci*, with a marked posterior ridge, elevated across the base of the leaf, which latter ends in a short acute lanceolate point; posteriorly it is covered with short hairs, anteriorly it is nearly naked. Its length is two lines. The ears are large, broad, and pointed; the outer margin is emarginate, and passes into a large rounded accessory lobe, closing the ear anteriorly. The *anti-brachia* are short, the thumbs small, the *tibia* slender.

"The fur is soft and delicate, and of a fine light or rufous chestnut, a little darker on the middle of the back; the wings are blackish.

"I have ventured to name this species in honour of the late enterprising, but unfortunate Mr. Lander, during whose expedition it was taken at Fernando Po."

Mr. Martin also communicated to the Meeting the following notice of a new species of Hedgehog.

"Among the specimens of Natural History, from the neighbourhood of Trebizond, presented to the Society by Keith Abbot, Esq., is a species of Hedgehog, decidedly differing from our well-known British species, and appearing to be at present undescribed. It is much smaller than the *Erinaceus Europæus*, measuring from the tip of the muzzle to the root of the tail, over the arch of the back, only $9\frac{1}{2}$ inches. The spines advance upon the forehead, and overshadow the eyes; the general colour presented by the spines 'en masse' is mahogany brown, but each spine individually taken is yellowish brown for three parts of its length from the basal extremity; this colour then becomes darker, and again passes into yellowish brown at the extreme apex; the annulation, however, is far less decided than in the British animal.

"The ears are short and rounded, a white patch is placed before them, and also on the forehead; the chest is dirty white; the sides of the muzzle, and the whole of the under surface are intensely blackish, or umbre brown, several long white hairs being intermixed with the rest on the shoulders, extending from the chest.

"The *tarsi* are longer than in *E. Europæus*. In a very large specimen of the latter, measuring from the nose to the root of tail, over the back, $14\frac{1}{2}$ inches; the foot from the heel to the end of the middle toe, excluding the nail, measures 1 inch $\frac{4}{8}$, while in this smaller species it measures 1 inch $\frac{5}{8}$.

"For this species I propose the name of *Erinaceus concolor*. It may be thus characterised.

"ERINACEUS CONCOLOR. *Er. obscurè fuscus, spinis in frontem, et super oculos obductis; spinis rigidis, flavescenti-fuscis ad basin, apicem versus intensè fuscis, apice extremo pallidè rufescenti-brunneo; auribus parvis, rotundatis; rostro breviusculo; in frontem notâ albâ, necnon ante aures; pectore sordidè albo, vellere corporis subtùs nigrescenti-fusco, pilis longis albis ad humeros sparsìm intermixtis.*

	unc.	lin.
"Longitudo corporis, a rostro ad caudæ basin, super dorsum	9	6
"Longitudo pedis postici a calce ad apicem digiti intermedii ungue excluso	1	$7\frac{1}{2}$

"Habitat apud Trebizond."

Mr. Waterhouse called the attention of the members to two species of Kangaroos, which were upon the table. One of these had lately been procured by the Society, and was from the neighbourhood of Hunter's River, the other had died in the Menagerie. Of this latter species the Society has possessed several living specimens; and there is still one in the Gardens, which was bred there.

Mr. Waterhouse stated that his object in bringing the animals in question before the Meeting, was to show that the specimen from the Menagerie was not, as had been supposed, the *Macropus ualabatus* of Lesson, but that it was in fact an undescribed species, being distinguished from that of Lesson, (which Mr. Waterhouse considered as identical with the specimen from Hunter's River,) by the following characters:—the under parts are grayish white, instead of buff yellow; the ears are rather longer in proportion, and the tail hoary gray, white beneath, and with a white tip, instead of being almost totally black. Mr. Waterhouse proposed that the name *Macropus Bennetti* be adopted for this species, and proceeded to characterise it as follows:

MACROPUS BENNETTI. *Mac. intensè cineraceus, regione scapulari,* *clunibus, et regione circum-oculari, rufo-brunneis ; corpore subtùs cinerescenti-albo ; rostro, auribus posticè, digitis anticis posticisque nigris ; lineâ albescenti vix distinctâ ab angulo oris, ad genas excurrente ; caudâ cinerescente, ad apicem nigrâ, et subtùs sordidè flavescenti-albâ.*

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin	24	10
——— *caudæ*	24	7
——— ab apice rostri ad marginem oculi ..	3	0
——— ab apice rostri ad basin auris	5	10
——— *tarsi digitorumque* (sine unguibus) ..	8	9
——— *auris*	3	1

Hab. Novâ Cambriâ Australi.

"The fur of this animal is rather long and moderately soft; the longest hairs on the middle of the back measure about two inches, and the shorter about one and a half inches in length. Its general line is a very deep gray, inclining to black on the back, somewhat paler on the sides of the body, and a rust-like tint is observable on the back of the neck and base of ears externally, over the haunches and shoulders and in the region of the eye. The under parts of the body, and the inner side and fore part of the hinder legs, are of a grayish white colour. The muzzle is black, and the crown of the head is brown black; an obscure whitish line extends backwards from the corners of the mouth, and becomes obliterated on the cheeks; the hairs on the lips are dirty white ; the chin is blackish. The ears are furnished with white hairs internally, and longish black hairs externally, excepting at the base. The limbs externally are of the same hue as the sides of the body ; the fore feet, and the toes of the hind feet are black, the outer side of the heel is also black. The hairs of the tail (excepting at the base, where they are of the same colours and character as those of the body) are rather harsh, black, and broadly annulated with silvery white near the apex ; the general tint is hoary gray, the white portion of each hair being most conspicuous ; the apex of the tail is black, and on this part the hairs are long and form a kind of tuft ; the under side of the tail is white. The hairs on the upper part of the body are of a deep slate colour at the base, the remaining portion of each hair is black annulated with white, or more generally with pale rust colour; on the under parts of the body, the hairs are of a deep slate colour with the apical portion white.

"The above descriptions and dimensions are taken from an adult male; the two females in the Society's Museum are of a smaller size and paler colour, their prevailing tint being reddish gray : around the entrance to the pouch the hairs are of a deep rusty brown colour."

A species of Mouse from the Cape of Good Hope was next described by Mr. Waterhouse under the name of

MUS SUBSPINOSUS. *M. pilis subspinosis, corpore suprà fuscescenti-*

griseo ; ad latera flavescente ; subtùs niveo, oculis flàvido cinctis ; caudá capite corporeque breviore ; auribus mediocribus.

	unc.	lin.
Longitudo ab apice rostri ad caudæ basin	3	4
——— *caudæ*	2	11
——— ab apice rostri ad basin auris	0	$10\frac{1}{2}$
——— *tarsi digitorumque*................	0	$8\frac{1}{4}$
——— *auris*	0	$3\frac{1}{4}$

Hab. Cape of Good Hope.

"This species is allied to the *Mus Cahirinus* of Geoffroy; it is, however, not so large; and although the hairs are flat and bristle-like, they are less harsh than those of the North African species; it also differs in its colouring."

Mr. Gould introduced to the notice of the Meeting a very singular form among the *Caprimulgidæ* for which he proposed the generic appellation of

AMBLYPTERUS.

Rostrum debile et elongatum.

Nares elevatæ et rotundatæ.

Rictus setis robustis instructus, rostro longioribus.

Alæ truncatæ ; remigibus externis sextis ferè æqualibus et falcatis ; remigibus 2^{do}, 3^{tio}, 4^{to} ad externum pogonium emarginatis, 7^{mo}, 8^{vo}, 9^{no} ad apices elongatis et attenuatis, 10^{mo} abrupte brevi; secondariis brevissimis, rotundatis et ab tertiariis tectis, his longissimis.

Cauda brevissima et quadrata.

Pedes ambulatorii.

Tarsi elongati, graciles, squamis indistinctis antice et postice fasciati ; digito intermedio longissimo et gracillimo ; digitis lateralibus brevibus et æqualibus ; digito postico parvo, debili et libero ; unguibus elongatis, ungue medio pectinato.

AMBLYPTERUS ANOMALUS. *Amb. summo capite, corpore suprà et alis cinereo-fuscis, singulis plumis nigro irregularitèr sparsis et maculatis ; primariis nigris, ad bases rubrescenti-cervinis, ad apices albis ; secondariis cervinis, nigrescenti-fusco irregularitèr fasciatis ; rectricibus caudæ cervinis, nigrescenti-fusco irregulariter fasciatis et maculatis ; duabus centralibus cinereo-fuscis ; gutture, pectore et abdomine ad partem superiorem nigrescenti-fuscis, singulis plumis cervino maculatis ; abdomine imo pallide cervino, singulis plumis nigrescenti-fusco transversìm fasciatis ; rostro fusco ; pedibus pallide fuscis.*

Long. tot. unc. $6\frac{3}{4}$; *rostri,* 1 ; *alæ,* $5\frac{3}{4}$; *caudæ,* 3 ; *tarsi,* $\frac{7}{8}$.

Obs. Mr. J. E. Gray believes this bird to be from Demerara, or the Brazils ; the specimen is in the collection at the British Museum, and so far as I am aware is unique.

Mr. Gould afterwards exhibited a species of *Ibis*, having many characters in common with the *Ibis religiosa* of Cuvier, and two new species of the genus *Platalea*, which were accompanied with the following descriptions.

Ibis strictipennis. *Ib. capite et collo superiore nudis, et nigrescenti-fuscis, cœruleo lavatis; corpore toto, et alis albis, cervino lavatis; plumis in gulâ longis, angustis, lanceolatis et rigidis; primariis ad apices cœruleo-viridibus; tertiariis valdè productis et nigro-cœruleis, albo sparsis; tarsis et spatio nudo sub alâ rufo-fuscis.*

Long. tot. unc. 30; *rostri*, 6; *alæ*, 14½; *caudæ*, 6; *tarsi*, 4.

Hab. Australiâ.

Platalea regia. *Plat. cristâ occipitali pendente et corpore toto, pectore excepto, albo; pectore flavo parum lavato; fronte facie anteriori et gulâ plumis prorsus nudis; notâ super oculos atque in occipite medio aurantiacâ.*

Long. tot. unc. 39; *rostri*, 8½; *alæ*, 15; *caudæ*, 5½; *tarsi*, 5½.

Hab. Novâ Cambriâ Australi.

Fœm. *differt a mare adulto, staturâ minore.*

Platalea flavipes. *Plat. corpore toto albo; parte faciei nudâ angustiore quàm in Plat. regiâ; parte nudâ et rostro aurantiacis; pedibus flavis.*

Long. tot. unc. 28; *rostri*, 7¼; *alæ*, 14½; *caudæ*, 5½; *tarsi*, 4¾.

Hab. Novâ Cambriâ Australi.

November 14th, 1837.

Thomas Bell, Esq., in the Chair.

Dr. Martin Barry, of Edinburgh, exhibited a living specimen of the *Proteus anguinus*, and read the following communication from Professor Rudolph Wagner, of Erlangen in Bavaria.

"I was so fortunate, at the end of the late summer, as to obtain three living *Protei*; of which I have examined two, just killed, that proved to be a male and female, and have given the third alive to my friend Dr. Barry, who may perhaps have an opportunity for bringing it forward at a meeting of the Zoological Society. The results of my examinations correspond perfectly with the statements of Cuvier, R. Owen, J. Müller, and others, on the *Proteidea*; but are opposed to several of the views lately put forth by Rusconi (*Observations sur la Sirène*, 1837). I have, for instance, no doubt that the pulmonary sacs or vesicles really perform the function of lungs. Each lung contains a large artery and a still larger vein, which are connected together by means of large and numerous vessels. To me the most important point was the examination of the blood globules and the generative organs. I conjectured, on various grounds, that the *Proteidea* would be found to have, of all animals, the largest blood globules:—first, because the size of the latter in the naked *Amphibia* in general is the largest in the animal kingdom; 2ndly, because, remarkable as it is, the blood-globules are here (in the naked *Amphibia*) so much the larger, the longer the gills continue in the larval state; hence the land and water salamander have much larger blood globules than the frog. I conjectured also that the *Protei* (probably also the Siren, &c.), because they permanently have both gills and lungs,—being therefore permanently *larvæ*,—would be found to have the largest blood globules. The latter are indeed gigantic; flat, oval, resembling those of the salamander, and from $\frac{1}{30}$ to $\frac{1}{40}$ of a Paris line in length; hence, as minute points, visible to the naked eye. They are from once to twice the size of the blood globules of the salamander, nearly three times as large as those of the frog, and about twelve or fifteen times the size of those of man.

"In a female, I found the *ova* very beautifully developed; their structure, as well as that of the ovary, corresponding perfectly with that of the other naked *Amphibia*, especially the *Triton*. The smallest ova consist of a delicate *chorion*, yellow yolk, large germinal vesicle, and *manifold* germinal spot*. I regret to say that in the otherwise tolerably developed *testes* of the male there were no *spermatozoa*. I conjecture however that the *spermatozoa* of this animal resemble those of the *Triton*. I would just remark, that the form and size of the blood globules, the formation of the *ova*, and the form of the *spermatozoa*, in different animals, have a great zoological and physiological interest. Already is it in my power, from a drop of blood or *semen* placed before me, to determine with the microscope, not only the class, but frequently the genus and the species from which these fluids have been taken. R. Wagner."

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* Compare my "*Prodromus Historiæ Generationis*."

Dr. Barry stated that, from his own microscopical examination, he was able fully to confirm the correctness of Prof. Wagner's observations upon the size and shape of the blood globules in the *Proteus*.

The Prince of Musignano laid before the Meeting the following communication, containing notices and descriptions of new or interesting birds from Mexico and South America.

I. Messrs. Swainson and Wagler have, as far as their materials would allow them, ably described the Birds of Mexico. Through the kindness of the Messrs. Paris I have been allowed to examine a small collection from that country, a list of which, with descriptions of new or interesting species, I shall subjoin; hoping thereby to add a little to our acquaintance with the ornithology of that interesting part of North America.

1. **Thrasaëtos Harpyia**, G. R. Gray. *Harpyia destructor*, Cuv. *Falco destructor*, Lath. *Vultur Harpyja*, L.

2. **Polyborus Brasiliensis**, Swains. *P. albo nigroque varius; pileo nigro, plumis cervicalibus elongatis; rectricibus albis, nigro fasciatis, apice latissime nigris.*

Falco Brasiliensis, Lath. *Polyborus vulgaris*, Vieill. *Quebranta huesos*, Mexic.

Figured by Vieillot, Swainson, and Audubon.

3. **Ceryle torquata**, Nob. *C. subcristata, cano-cærulescens, torque albo; subtus castanea; alis caudâque albo maculatis.*

Mas. *Pectore cano-cærulescenti, crisso ferrugineo.* Fem. *Pectore castaneo, crisso albo.*

Buff. Pl. Enl. 284. *Alcedo cinerea*, Vieill, *Martin pescador*, Mexic.

Interesting for the locality, as it has been doubted, even by Mr. Swainson, the able discriminator of this group. (See Birds of Western Africa, II. p. 93.)

4. **Ceryle alcyon**, L. *Ispida Alcyon*, Sw.

The most southern limits of this North-American species hitherto ascertained are Mexico and one or two of the West Indian islands.

5. **Ramphastos carinatus**, Swains., Wagl. *R. nigerrimus, uropygio albo, gulâ pectoreque flavis; crisso ac fasciolâ colli infimi coccineis; rostro viridi apice coccineo, maculâ submediâ aurantiâ, culmine percarinato flavo.*

Edwards, t. 329. *Sw.* Zool. Ill. t. 45.

This species, so rarely to be found in collections, has been confounded with a Linnean *Toucan*, notwithstanding Edwards's figure and description.

6. **Trogon**, *mas adultus. T. viridi-aureus, gulâ nigrâ, abdomine miniaceo; alis fuscis, tectricibus albo irroratis; caudâ nigrâ, rectricibus tribus extimis albo fasciatis; rostro flavo.*

Pito real. Mexic.

Jun. *fusco-cinereus; abdomine luteo; tectricibus alarum strigis albis.*

Gabilan, Mexic.

7. **Trogon Mexicanus**, Swains. ? ♀. *T. olivaceus; abdomine rubro; caudâ nigricante; rectricibus truncatis, duabus mediis ferrugineis fasciâ terminali albidâ nigrâque, lateralibus tribus apice albo et latere externo albo fasciatis.*

I have not given names to these birds, because they will certainly be included in Mr. Gould's beautiful Monograph.

8. **Macrocercus militaris**, Vieill. *M. viridis; uropygio remigibusque cæruleis; fronte rubrâ; genis nudis lineis plumosis; caudâ rubricante, rectricibus apice cæruleis.*

Psittacus militaris, L. *Edw.*, t. 113. *Guacamaja*, Mexic.

9. **Melanerpes formicivorus**, Swains. *M. niger; occipite rubro; fronte, uropygio, remigumque fasciâ basilari, albis; gulâ flavidâ; pectore nigro striis albis; abdomine albo, lateribus crissoque nigro striatis.*

Picus melanopogon, Licht. Temm., pl. enl. 451. *Carpintero negro*, Mexic.

10. **Centurus subelegans**, Nob. *C. albo nigroque fasciatus; subtus cum capite dilutè cinerescens; vertice rubro, fronte et cervice subauratis.*

This bird resembles Mr. Swainson's *Centurus elegans*, but is well distinguished by wanting the very conspicuous black superciliary spot, and by the much less brilliant gold colour of the crown.

11. **Colaptes rubricatus**, Nob. *C. griseo-rufescens, nigro supra fasciatus, subtus maculatus; uropygio albo; gulâ cinereo-vinaceâ immaculatâ; remigum rectricumque scapis rubris.*

Mas. *Fasciâ mystacali rubrâ.* Fœm. *Fasciâ rubrâ nullâ.*

Colaptes collaris, Vig. *Picus rubricatus*, Licht. *Colaptes Mexicanus*, Sw. *Carpintero rosado*, Mexic.

Nearly allied to the *Colaptes auratus* of North America. To this group belong also the *Picus arator* (*Geocolaptes terrestris*, Sw.) of Caffraria; the *Picus Chilensis*, Lesson, Zool. Coq. t. 32; the beautiful *Colaptes Fernandinæ*, Vig., from the Island of Cuba, and two or three others.

12. **Cyanocorax coronatus**, Nob. *C. cristatus, cyaneus; cristâ ex toto cæruleâ, capitis lateribus tantum nigricantibus; mento, fronte, et superciliis albicantibus; alarum tectricibus, remigibus scapularibusque nigro fasciatis; caudâ parum rotundatâ.*

Garrulus coronatus. Jardine and Selby's Ill. Orn., t. 64. *Azul Capetan,* Mexic.

This must not be confounded with the larger *Garrulus Stelleri.* Nob. Am. Orn. II. t. 13. f. 1.

13. Quiscalus major, Vieill. *Urraca,* Mexic.

14. Xanthornus gularis, Wagler. *X. rubro-aureus, loris, gulâ et fasciâ jugulari, dorso, alis caudâque nigris; tectricibus alarum minoribus supra infraque aureis; remigibus basi, tectricibus majoribus apice, remigibusque secundariis margine externo, albis.*

Calandria de Bergara, Mexic.

A species very similar to *Oriolus Xanthornus,* L., and still more so to *Icterus Mexicanus,* Leach, Zool. Misc., I. t. 2 (*leucopteryx,* Wagler), having its robust bill and extent of white marking on the wing, but is well distinguished from both by its black back and more vivid colour.

15. Icterus Parisorum, Nob. *I. niger, tergo, abdomine, tectricibus minoribus alarum, rectricibusque lateralibus a basi ad medium flavo-olivaceis; tectricibus alarum majoribus remigibusque secundariis apice albis.*

Calandria, Mexic.

Nearly allied to *Ict. Dominicensis* (*flavigaster,* Wagl.), from which, however, it is distinguished by the white on the wing and the yellow on the tail. The bill in both is remarkably slender and very acute.

I have much pleasure in naming this bird after the brothers Paris, who, notwithstanding the arduous nature of their professional engagements in Mexico, allowed no opportunity of furthering the interests of science to pass unimproved. I quite agree with the opinion, that in a country whose commercial transactions are so extensive as they are in this, the captain of a trading-vessel bringing home "a 'curious bird,' which may prove to be new, has no claim to have his name immortalized;" but the same rule I would not apply to the Roman state, where a person crossing the sea is a rare occurrence.

16. Agelaius gubernator. *A. niger, alarum tectricibus minoribus ruberrimis unicoloribus.*

Psarocolius gubernator, Wagl. in Isis, 1832, p. 281.

This species, hardly established by Wagler under the specific name we have adopted, differs from the common *Phœniceus* of the United States by having the red spot on the shoulder of a uniform lively colour, wanting the ochraceous band beneath it; whilst the new Rocky mountain closely allied species, figured by Mr. Audubon under the name of *tricolor,* has, as the name implies, three most distinct colours on the shoulder spot. Our Mexican species is larger than the common, has the wings longer and broader, and the tail less rounded.

The diagnosis of *Phœniceus* will be

Ag. *Niger, alarum tectricibus minoribus rubris bicoloribus, fasciâ terminali ochraceâ.*

The diagnosis of *tricolor,*

Ag. *Niger, alarum tectricibus minoribus rubris bicoloribus, fasciâ terminali candidâ latissimâ.*

17. Sturnella Hippocrepis, Wagl. Also found in the island of Cuba, and registered by Mr. Vigors in his paper on the birds of that island, under the name of *Sturnella collaris.*

Friguevo, Mexic.

18. Guiraca cœrulea, Sw. *Azulero,* Mexic.

An adult male: this is worthy of remark, as Mr. Swainson's specimens were all immature.

19. Guiraca melanocephala, Sw. *G. fulvo-ferruginea; pileo, genis, dorso, alis caudâque nigris, tectricibus alarum inferioribus et medio corpore subtus flavissimis; alis caudâque albo variis.*

Fringilla xanthomaschalis, Wagl. Isis, 1831. p. 525. *Fr. maculata,* Audubon, necnon Lath. *Figuerillo,* Mexic.

The *Coccothraustes Bonapartei* of Lesson's Zool. Ill. is the same bird as the one described by Dr. Richardson in the Fauna Boreali-Americana, as the female of *Coccothraustes vespertina,* Cooper.

20. Cardinalis Virginianus, Nob. *C. ruber; gulâ et capistro nigris; caudâ valdè rotundatâ; rostro conico, subdentato.*

Hab. Throughout N. America.

Finding in the collection of the Zoological Society two beautiful undescribed species of this my new form, I take this opportunity of making them known, especially as both come from Mexico. They all preserve the short rounded wings and lengthened tail, and even the crested head and red colours. As to the different shape of the bills, it is only an additional proof of the little importance to be attached to the form of that member in the conirostral birds.

Cardinalis phœniceus, Gould. *C. ruberrimus; capistro tenuissimo nigricante; caudâ rotundatâ; rostro robustissimo conico-turgescenti sinuato-dentato.*

A small but most splendid species, received by Mr. Gould from the country south of the Bay of Honduras.

Cardinalis sinuatus, Nob. *C. rubro cinereoque varius; gulâ et capistro coccineis; caudâ vix rotundatâ; rostro compresso turgido sinuato.*

Hab. Western parts of Mexico.

21. Phileremos cornutus, Nob. *Alauda chrysolaëma?,* Wagl. *Fildio de Llano,* Mexic.

Six species are now known of this peculiar subgenus of *Alauda.*

22. Turdus migratorius, L. *Sarsal,* Mexic.

23. Icteria viridis, Nob. *Pipra polyglotta,* Wils. *Icteria dumicola,* Vieill. *Arriero,* Mexic.

The tints are somewhat darker than in the United States' specimens.

24. Erythrospiza frontalis, Nob. *Pyrrhula frontalis,* Say. Nob. Am. Orn. 1. t. 6. f. 1. mas. 2. fœm. *Fringilla hæmorrhoa,* Licht. Wagl. Isis, 1831, p. 525. *Gornion,* Mexic. *Nocktotl,* Hernand. Thes. p. 31. c. 81.

This beautiful bird, reckoned until now very rare, and thought to be peculiar to the Rocky Mountains, in districts far removed from civilization, is very common in the city of Mexico, where according to Mr. Paris it takes the place of our common sparrow, provoking the science of the professors in the very yard of the university.

25. Tyrannula coronata. Sw. *T. fusca; capite, cristâ erectâ rotundatâ et corpore subtus coccineis.*

Fœm. *griseo-fusca; capite lævi concolore et pectore albidis; ventre tantum subminiaceo.*

Muscicapa coronata, Lath. Buff. Pl. Enl. 675. f. 1. male. *Cardenal,* Mexic.

Its southern range extends to Demerara, where it is very common. Contrary to what happens in the other species of the group, the female now described for the first time differs considerably from the other sex.

26. Tyrannula divaricata, Nob. *T. cristata, cinereo-olivacea; mento orbitisque albicantibus; dorso alisque olivaceo-rufescentibus; alis acuminatis; remigibus* 1^{mo} et 5^{to} *subæqualibus;* 2^{do}, 3^{tio}, et 4^{to} *omnium longissimis; caudâ divaricatâ corpore longiori rectricibus quatuor mediis dorso concoloribus; duabus hinc inde nigricantibus, extimis duabus utrinque dimidiato-cinereis. Rostro brevissimo nigerrimo.*

Long. 8″; *rostr.* 8‴; *al.* 6″; *caud.* 4″; *tars.* 1‴.

Riusito, Mexic.

We have dwelt at greater length on the characters of this bird, as it is likely to become the type of a new group.

27. Lanius Ludovicianus. *Berduquillo,* Mexic.

A specimen with the two middle tail feathers only entirely black, in which condition it is most probably the *L. excubitorides,* Sw.

When Mr. Swainson says, that he cannot reconcile the measurements and proportions of the quills of *L. Borealis* and *excubitor,* as stated by me, he is perfectly right, and no one but myself can explain the reason: the fact is, that while comparing I unfortunately must have taken up a specimen of *L. Italicus,* Lath., instead of one of the *excubitor*. Mr. Swainson has taken much pains to point out several species of North American shrikes; but we know only two species of that genus in America, his *L. Borealis* and *Ardesiaceus*; which latter, by the by, should be called *Ludovicianus* on our account, if not on Brisson's.

28. Pipra elegantissima, Nob. *P. purpureo-nigra; fronte cas-*

taneo-fuscâ; vertice nuchâ et cervice pulchre cyaneis; pectore abdomineque fulvo-æruginosis.

This most elegant species of square-tail Manakin resembles the *P. cyanocephala,* Vieill., but is at once distinguished by the general blackness of its plumage, and especially by its having a black throat. It might be taken for an undescribed state of that most variable species, the *P. serena,* L., which however has always been found with a white forehead, a blue rump, the blue colour of the head much more circumscribed. The rufous belly will at once distinguish it from the *P. cyaneocapilla* of Wagler, Isis, 1830. p. 934., figured by Spix under the name of *P. coronata,* II. 67. f. 1. As to the *Pipra Musica* (*Euphonia cæruleocephala,* Sw.), it differs by its black frontlet and orange rump.

29. **Pipra linearis**, Nob. *P. capite alis caudâque nigris; vertice cristato coccineo; rectricibus duabus intermediis lineari-acuminatis, nigris, cæteris triplo longioribus.*

Mas. *Niger; dorso cæruleo.* Fœm. *Olivacea.*

Two species have been confounded by authors and by Wagler himself under the name of *Pipra caudata,* which are however well distinguished by the shape of the elongated tail feathers. The name of *P. caudata* must be retained, for the species figured by Shaw, t. 153. Nat. Misc. V. whilst the *longicauda* of Vieill., of which D'Azara speaks under the characteristic name of *Queue en pelle* is at once distinguished by the dilatation in the apex of its elongated tail-feathers. We subjoin the characters of both.

Pipra longicauda, Vieill. *P. cærulea; capite, collo, alis caudâque nigris; pileo cristato fulvo-coccineo; rectricibus duabus intermediis cæteris dimidio longioribus, cærulescentibus, apice dilatatis.*

Jun. *subvirescens.*

Pipra melanocephala, Vieill. *P. nigra dorso cæruleo; vertice cristato coccineo; rectricibus duabus intermediis cæteris sesqui-longioribus, nigris, acuminatis.*

P. lanceolata, Wagl, Isis, 1830, p. 931.

30. **Columba flavirostris**, Wagl. Isis, 1830, p. 519. *C. rufo-vinacea; alis extus et totis subtus, uropygio, caudâ, ventre abdomineque plumbeis; rostro pedibusque rubris; rectricibus saturatioribus; remigibus albo minutissime externe limbatis.* Long. 1′.

31. **Leptoptila rufaxilla**, Swains. *L. brunneo-vinacea; nitore colli vix conspicuo, fronte gulâ et pectore dilute vinaceis, abdomine albo; rostro nigro; pedibus rubris; tectricibus alarum minoribus et pennis axillaribus longissimis vivide castaneo-cinnamomeis; caudâ parum rotundatâ; rectricibus tribus extimis obscurioribus apice albis sine ullo vestigio fasciæ nigricantis.*

Long. 9″ 6‴; *caud.* 3″ 6‴; *al.* 5″ 3‴; *rostr.* 10‴; *tars.* 1″.

Columba frontalis, Temm. *C. rufaxilla,* Wagl.

Closely resembles *C. aurita*, Temm., from which it differs in wanting black spots to the wings, in having a less rounded tail without the black band, and in the wing coverts being rufous, and not grey.

32. Ortyx Montezumæ, Vigors, Jard. and Selby. Ill. Orn. fasc. 9. t. 126. *O. cinereo-violacea; plumis nigro fasciatis, secundum rachim cinnamomeo lineatis; tectricibus alarum maculis rotundatis nigris: subtus nigra maculis perlatis albis; abdomine medio longitudinaliter castaneo.*

In our specimens, perhaps arising from immaturity, the throat is whitish, and not black.

Fœm. *Tectricibus alarum maculis non rotundatis at fasciformibus; subtus læte vinacea, nigro signata, maculis albis obsoletis.*

Codarniz, Mexic.

Among the numerous *Ortyges* lately discovered in Mexico, and especially among the crestless species, the *Ortyx Montezumæ*, of which we now, for the first time, introduce the female to the notice of naturalists, is the most handsome.

33. Egretta Leuce, Nob. *Ardea leuce*, Ill. *Ctanza blanca*, Mexic.

34. Rallus Chiricote, Vieill. *Gallina de Montensoma*, Mexic.

35. Parra Jacana, L. *P. purpureo-castanea; capite, collo corporeque subtus nigro-violaceis; remigibus flavo-olivaceis nigro marginatis; spinâ alarum robustâ flavâ.*

Jaquanar at Vera Cruz. Buff. Pl. Enl. 272.

All the Mexican specimens I have seen are of a much darker tinge and of a larger size than the Brazilians.

II. Having lately, through the kindness of Colonel Velasquez de Leon, had an opportunity of examining a collection of birds, formed by him during a fortnight's scientific tour in Guatamala, I think it desirable to give the Society a list of the known species contained in it, with concise descriptions of those birds which appear to me to be new. I hope they may prove not uninteresting to the naturalist, for whom that part of Central America possesses attractions not inferior to those of any other country.

1. Herpetotheres cachinnans, Vieill. *H. albus, nigro coronatus; dorso alisque fuscis, remigibus interne rufo fasciatis; rectricibus albo nigroque fasciatis.*

Falco cachinnans, Lath. *Macagua ricaneur*, D'Azara.

2. Buteo. A species which I am unwilling to give a name to, owing to the immature state of the only specimen I have seen.

It is of an ashy brown colour, with the vent feathers whitish, banded with rusty. The wings reach a little beyond the middle of the tail; the primaries are rusty red, with black bands except at the tip. The tail-feathers ashy, with four wide black bands.

3. Prionites Momotus. *P. viridis, subtus fulvescens; pileo*

nigro, coronâ cyaneâ; rectricibus duabus mediis ultra rachim nudam cœruleis, apice nigricante.

Momotus, Briss. *Ramphastos momota*, L. *Momotus Brasiliensis*, Lath.

4. Crotophaga Sulcirostra, Sw. *Cr. Casasii*, Less. Long. 11″ 6‴.

5. Corvus Cacalotl. Wagl. Isis, 1831, p. 527. *Cacalotl.* Hernandez Thes. p. 48, c. 174.

This bird is very properly regarded and characterized by Wagler as distinct from the European *Corvus Corax*, although its differential characters have escaped the notice of all writers on North American ornithology. It therefore diminishes still further the daily decreasing list of birds which have been regarded as common to the two great continents.

Besides the different form of the bill, contour of the feathers, and shape of the tail, the proportions in the lengths of the primaries differ, as is usual in the different species of crows. The first quill is shorter than the seventh, the second and sixth are equal; the third is shorter than the fifth, the fourth being the longest; while in the European bird the second quill is longer than the fourth, and the third is the longest of all. In the American species, the second is much shorter than the fourth, which is even longer than the third and fifth.

This species must not be confounded with the more brilliant and more strongly marked *C. splendens* of Gould, also from Mexico.

6. Cyanurus Bullocki, Nob. *Pica Bullockii*, Wagl.

The numerous synonyms and descriptions of this magnificent and well-known species need not be recited here.

7. Cyanocorax coronatus, Nob. *Garrulus coronatus*, Sw.

Not to be confounded with the closely-allied species, *G. Stelleri*.

We propose retaining *Cyanurus*, Sw., for the long-tailed *Blue Magpies*, whilst *Cyanocorax*, Boje, belongs by right to the American *Blue Jays*.

8. Cassicus. A small white-billed species, of an uniform intensely black colour, with a remarkably robust tail. This can be referred to the *C. nigerrimus* of Spix, or, perhaps with still more propriety to the *C. solitarius* of Azara. In consequence of the confusion which still reigns among these black American birds, I am unwilling to increase it by giving the present bird a specific name, but must content myself with subjoining a description.

C. in toto nigerrimus; rostro valido acuminato ex virescente albo; plumis capitis elongatis, latis, rotundatis; remigibus rectricibusque latissimis, subfasciatis; caudâ gradatâ.

9. Coccyzus Cayanus. *C. rufus, pectore abdomine femoribusque plumbeis; caudâ longissimâ valde cuneatâ, rectricibus lateralibus apice albis.*

Cuculus Cayanus, L.

10. Trogon. An immature specimen, which, as the young of several other species, agrees with the *Trogon strigilatus* of Linn.

11. Centurus Santa Cruzi, Nob. *C. albo nigroque striatus, capite et corpore subtus griseo-olivaceis; vertice cerviceque rubris; fronte et abdomine aureis; uropygio albo; remigibus rectricibusque nigris.*

Nearly allied to the *Picus Carolinensis*; but distinct, by its bill being more arcuated, the tail feathers all black, and the golden front and belly; distinct also from the *albifrons* of Mr. Swainson, which, with a golden belly, has the front, the sides of the head, and half of the throat, white: its rump is also thickly banded.

A much smaller undescribed species in Mr. Swainson's collection (*Picus aurifrons*) comes still nearer to mine, which, at the request of Colonel Velasquez, I have named after a scientific professor in Mexico.

12. Icterus Baltimore. *Oriolus Baltimore,* L. An adult male and a young bird.

13. Icterus spurius. *Oriolus mutatus,* Wilson. *Psarocolius castaneus,* Wagler. An adult male and a young bird.

14. Icterus.

A female bird, closely allied to the *Baltimore* and the *spurius,* but different from either: its colours would bring it much closer to the *Baltimore,* but it wants the black on the throat, whilst all its under parts are much more vivid than the corresponding portions in any stage of the *spurius.* Its rump is olive-yellow, the head and the back olive-brown, the white bands on the wings very broad and conspicuous.

15. Icterus Bonariensis. *Psarocolius sericeus,* Wagl. Pl. Enl. 710. Adult male.

16. Guiraca Ludoviciana, Sw. *Loxia Ludoviciana,* L. *Fringilla punicea,* Lath. A young bird.

17. Pyranga æstiva, Vieill. *Tanagra æstiva,* Lath. Male, in moult.

18. Pyranga Ludoviciana, Nob. *P. flava; facie rubricante, dorso alis caudâque nigris; alarum fasciâ duplici-flavâ ob apicem tectricum.*

Tanagra Ludoviciana, Wils. *Pyranga erythropis,* Vieill.

19. Tanagra chlorotica.

20. Tanagra episcopus, L. *T. cinereo-cærulescens, subtus paullo dilutior, remigibus rectricibusque fuscis, margine externo cæruleo; rostro plumbeo-nigro.*

21. Tanagra vicarius, Lesson. *T. rostro nigro robusto; capite cyaneo, capistro nigro; dorso sordide virescente; abdomine fla-*

vescente; tectricibus alarum minoribus cyaneis, speculo alari flavo.

This beautiful species, figured by Lesson in his Centurie Zoologique, pl. 68, considerably resembles the several blue species of *Tanagra*, often confounded with the *T. episcopus*, L., on account of their similarity to it; I mean the *T. archiepiscopus*, Desm.; *T. Sayaca*, L. (*T. glauca*, Sparrm); *T. olivascens*, Licht. (erroneously taken for the female of the *T. Sayaca*); but the beautiful goldfinch-like yellow spot, which it bears at the base of the primaries, as well as the blacker and much more robust bill, almost bullfinch-shaped, distinguish it from them all.

22. Euphonia violacea. *E. nigro-chalybea; fronte pectore abdomineque flavissimis; tectricibus alarum inferioribus, remigibus intus basi, maculâque mediâ pogonii interni, rectricisque lateralis albis.*

23. Euphonia hirundinacea, Nob. *E. olivaceo-flava, fronte et subtus flavâ, vertice genisque nigro-chalybeis, remigibus rectricibusque nigricantibus, margine externo olivaceis; rostro nigro valde uncinato, subhirundineo.*

24. Arremon giganteus, Nob. *A. læte olivaceus; rostro robustissimo nigerrimo, capite nigro; gulâ mediâ albâ (unde nigro-cincta); pectore abdomineque plumbeo, crisso flavo, æruginoso; remigibus nigris, caudâ olivaceâ, valde rotundatâ.*

As the chief difference between this bird and the *Silens* consists in its greater dimensions, I subjoin them:

Long. tot. 9″ 6‴; *rostr.* 1″; *al.* 4″ 6‴; *caud.* 4″ 6‴; *tars.* 1″.

25. Icteria Velasquezi. *I. viridis; pectore flavo-aurantiaco; rostro nigricante, mandibulâ albicante.*

An important addition to the genus *Icteria*, which hitherto comprehended only one species, the *Pipra polyglotta* of Wilson, *Icteria viridis*, Vieill., from which it differs in the more intense, almost orange-colour of the breast, and by the whiteness of the under mandible of the bill, which is entirely black in the *viridis*. *I. viridis* may stand characterised as follows:

I. viridis, pectore flavo; rostro ex toto nigro.

26. Thamnophilus doliatus. *T. albo nigroque fasciatus, vertice candido, nigro cincto.*

27. Thamnophilus rutilus, Vieill. *T. rufo-cinnamomeus, subtus flavo-cinnamomeus, rostro robusto, genis albo nigroque variis; remigibus medio fuscis; rectricibus rufis, unicoloribus.*

28. Todus cinereus, Briss. (Pl. Enl.) *T. cinereo-olivaceus, subtus flavissimus, pileo nigricante; alis nigricantibus, tectricibus remigibusque externe flavo limbatis, caudâ gradatâ nigrâ, rectricibus lateralibus apice albis; rostro nigro, subtus albido.*

29. Setophaga ruticilla, Sw.
A female.

30. Setophaga rubra, Sw. *S. rubra, alis caudâque fuscis: genis albo-sericeis.*
Sylvia miniata, Lafresn., Mag. de Zool., 1836. Cl. II. tab. 54.

31. Sylvicola decurtata, Nob. *S. læte viridis, subtus, cum tectricibus alarum, albo-virescens ; capite colloque supra plumbeis, subtus albis ; alis majusculis, remigibus subfuscis, supra externe viridi marginatis, subtus interne albo limbatis. Primo dimidium, secundo æqualis duodecimi,* 3, 4, 5, 6^{toque} *omnium longissimis. Caudâ parvâ angustâ æquali, rectricibus virescentibus.*
Long. 4″; *rostr.* 7‴; *al.* 2″; *caud.* 1″ 3‴; *tars.* 7‴.

This very singular small bird, partaking partly of the characters of *Vireo* and *Sylvia*, is very remarkable from the abbreviated form of its body; its wings and tail are also very singular, and almost entitle it to rank as a distinct genus.

32. Turdus Grayi, Nob. *T. olivaceo-fuscus, subtus flavo-cinnamomeus, gulâ tantum vix fuscescenti striatâ : tectricibus alarum inferioribus remigumque margine interno aurantio-cinnamomeis, remigum primo sextam æquante,* 4^{to} *et* 5^{to} *omnium longissimis, tertiam et sextam vix superantibus ; caudâ æquali, duo pollices ultra alas prætensâ ; rectricibus submucronatis.*
Long. tot. 8″; *rostr.* 1″; *al.* 4″ 3‴; *caud.* 3″ 3‴; *tars.* 1″ 1‴.

A typical species: which I have much pleasure in dedicating to Mr. G. R. Gray, a young ornithologist.

33. Tyrannus superciliosus. Swains. *T. fusco-olivaceus, subtus cum tectricibus alarum flavissimis; caudâ emarginatâ; vertice basi rubro ; superciliis amplis gulâque candidis.*
Long. tot. 6″ 6‴ ; *caud.* 3″ ; *al.* 3″ 5‴ ; *rostr.* 9‴ ; *tars.* 8‴.

34. Synallaxis cinerascens, Temm., Pl. Col. 227, f. 3. *S. fusco-badia, capite toto saturatiore, pectore alis caudâque læte castaneis, ventre cinerascente ; remigum apicibus flavescentibus ; rostro nigro.*

35. Mniotilta varia, Vieill. *Sylvia varia*, Lath. *Oxyglossus maculatus*. Sw.

36. Cœreba cyanea, Vieill. *Certhia cyanea*, L.

Scolopacinus, Nov. Gen.

Rostrum longissimum, basi trigonum, gracile, rectissimum ; mandibulis æqualibus, superiore apice extimo subcurvato, subhiantibus : nares fossâ majusculâ, membranulâ fere omnino clausæ.
Pedes elongati ; tarso digito medio sesquilongiore : digiti omnes a

basi fissi, valde inæquales, postico validiore, ungue robusto valde arcuato.

Alæ maxime rotundatæ; remigibus 1^{mo}, 2^{do}, 3^{tio} sensim longioribus; 4^{to} cæteris sed vix longiore, omnibus latis.

Cauda breviuscula, valde gradata.

37. SCOLOPACINUS RUFIVENTRIS, Nob. *Sc. brunneo-olivaceus; genis et subtus aurantio-cinnamomeis; gulâ albâ inferne striis nigris; remigibus fuscis; caudâ nigrâ, rectrice extimâ maculâ transversali, 2^{nda} maculâ internâ apicali, tertiâ apice tantum, albis. Rostrum fuscum subtus basi album.*

Longit. 4″ 6‴; *al.* 2″; *caud.* 1″ 6‴; *tars.* 10‴.

This bird is closely related to the *Troglodytes rectirostris* of Swainson's Zool. Ill., t. 140, which, though its bill be shorter than in this our typical species, belongs to the same genus; which the learned author could not but anticipate when he placed it with the *Wrens*. A specimen of it in the British Museum wants the white markings on the tail, and has the bill shorter than in our *rufiventer*.

Since writing the above, I find that Mr. Sundeval has formed the latter species into a genus, which he named *Acontistes*.

38. CAPRIMULGUS VOCIFERUS, Wils. Common in the United States.

39. PENELOPE VETULA, Wagl. *P. brunneo-olivacea; capite colloque ardesiaceis; epigastro et ventre albis, crisso vix rufescente; rectricibus æneo-viridibus, lateralibus apice late albis; remigibus integris; tarso digito medio breviore; meatu nudo, vittâ intermediâ subpiloso-plumosâ.*

It differs too little from the *P. vetula*, Wagler, Isis, 1830. p. 1111. sp. 14, for me to venture to make a distinct species.

III. I subjoin the description of some new or rare species (placed in my hands by Mr. Leadbeater, during my stay in London), from that portion of Brazil bordering on Peru; and interesting, as further elucidating the Ornithology of that little-known country. I understand that they will hereafter form a portion of that valuable collection which belongs to the Earl of Derby.

1. CRYPTICUS MARTII, Nob. *C. virens, capite, collo, pectoreque rufo-fulvis: fasciâ oculari, maculisque jugularibus nigris.*

Momotus platyrhynchus, Leadb. *Prionites Martii*, Spix.

A specimen with the middle tail-feathers entire.

To this new genus of Mr. Swainson will also belong the *Momotus superciliosus* of Mr. Sandbach, lately described at a meeting of the British Association at Liverpool,

2. CAPITO MACRODACTYLUS, Nob. *C. fusco-brunneus, pileo castaneo, cervice cinnamomeâ; gulâ juguloque albidis, collari latissimo nigro; abdomine nebuloso.*

Cyphos macrodactylus, Spix, pl. 39, fig. 2.

3. **Micropogon aurovirens**, Nob. *M. olivaceus, pileo ruberrimo, gulâ pectoreque aurantiacis.*

Bucco aurovirens, Cuv. Le Vaill. Suppl. pl. E.

From Sarayacu. "The eyes were red, the legs grey."

4. **Micropogon flavicolle**, Nob. *M. niger luteo maculatus, pileo luteo-virescenti: gulâ aurantiacâ: abdomine flavo.*

Mas. *Jugulo immaculato.* Fœm. *Jugulo maculis nigris.*

Resembles *Capito aurifrons,* Vig. from Chili; but is sufficiently distinct.

5. **Galbula tombacea**, Spix, pl. 58. *G. aureo-viridis, abdomine rufo: jugulo immaculato.*

A tail-less specimen belonging certainly to that species, distinct from the numerous ones just described by Mr. Swainson; differing from all by the uniform green colour of the chin, throat, and breast.

6. **Dendrocops platyrostris**, Nob. *D. rufescens, nigro undulatus, uropygio, remigibus, rectricibusque puris.*

Dendrocolaptes platyrostris, Spix, pl. 89.

A large and very remarkable species, in which the characters of the genus, as beautifully described and drawn by Mr. Swainson, are strongly developed.

7. **Asthenurus rufiventris**, Nob. *A. fuscus, subtus cum genis rufis: pileo nigro, rubro maculato.*

8. **Melanerpes meropirostris**, Nob. *M. niger, fronte rubrâ: vittâ superciliari albâ, postice aureâ: uropygio candido: abdomine medio coccineo; lateribus, crisso, remigibusque albo nigroque fasciatis.*

Picus meropirostris, Wagl.

The bill is rather more curved than in other species of the group, and has the culminar and nasal ridges remarkably distinct.

9. **Xanthornus mentalis**, Wagl. A young specimen.

10. **Sturnella militaris**, Vieill.

11. A female of a species of *Dolichonix,* with a belly tinged with red, and less acute tail-feathers than in the type, intermediate between the only two species of the group hitherto known: perhaps the female of the *Agelaius phœnisomus,* Swains.

12. **Guiraca magnirostris**, Nob. *G. griseo-flavida nigro maculata; subtus cum superciliis flavis: crisso albo: remigibus rectricibusque fuscis: tectricibus alarum majoribus scapularibusque apice albo notatis.*

A female bird of an unknown species, allied to the *G. melanocephala,* Sw.; but differing by the bill being much longer and thicker.

13. **Spiza versicolor**, Nob. *S. violaceo-cyanea purpureoque varia: uropygio cyaneo: capistro nigro: alis caudâque fuscis.*

Found near Temascallepec: "has a sweet song; feeds on seeds;

eyes brown." With the *amœna*, the *ciris*, and the *cyanea*, it belongs to my genus *Spiza*, as I have lately restricted it; that is, to my Tanager-like *Spizæ*.

14. Ramphocelus nigrogularis, Spix. *R. coccineus, facie, dorso, ventre, alis caudâque nigris.*

Ramphocelus ignescens, Less., Cent. Zool., pl. 24.

This synonym is interesting as settling the point of the identity of the Mexican and Brazilian birds, which I left undecided in my small monograph on this genus. Sir W. Jardine's *Ramphopis flammigerus* (Ill. of Zool., tab. 131.) is the same as my *R. Passerinii*. M. d'Orbigny figures a fifth species of the genus, in his recent voyage, under the name of

Ramphocelus atro-sericeus, D'Orb. Voy. Am. M. Ois. pl. 24, fig. 1. *R. niger capite gulâque atro-coccineis.*

Ramphocelus icteronotus, Nob., *R. niger, dorso postico uropygioque flavissimis.*

This description is added, from a specimen contained in the Paris Museum.

15. Tanagra cyanocephala, D'Orb., pl. 23. fig. 2. *T. viridiflava, pileo cerviceque azureis; subtus canescens; alarum tectricibus inferioribus, remigibus interne, crisso femoribusque flavissimis.*

The bill is rather more compressed than in many other typical species of Tanagers. This beautiful bird resembles several other blue-headed species of the genus, but is most easily distinguished by our diagnosis.

16. Tanagra striata, Gm. *T. nigra, capite, collo, alarumque tectricibus cæruleis; pectore uropygioque aurantiacis; abdomine flavo: femoribus cinereis.*

This species closely resembles a Chilian bird in the British Museum, brought to this country by the expedition under Capt. Fitzroy; the latter, however, may be distinguished by its longer bill, by being yellow instead of orange on the breast and rump, and by being brownish olive on the back. It may be distinguished as the

Tanagra Darwinii, Nob. *T. olivacea, capite, collo, alarumque tectricibus cæruleis: subtus ex toto cum uropygio flavis: femoribus cinereis.*

17. Tanagra celestis, Spix, pl. 55, fig. 1. *T. cæruleo-grisea: tectricibus alarum minoribus apiceque majorum albis.*

It is not unworthy of note, that whilst so many different species, closely related to the *Tanagra Episcopus* of Linnæus, should be distinguished by the peculiar hue of the shoulder spot, varying from pink to yellow in some species, to different shades of blue in others, in this it should be pure white: the tips of the greater wing-coverts, being also white, give to the wing a quite peculiar appearance.

18. Aglaia nigro-cincta, Nob. *A. viridi-cyanea, dorso, pectore remigibus caudâque nigris, abdomine albo.*

It differs from *Agl. Brasiliensis* by its smaller size and more delicate bill; the greenish tinge of the blue is much more extended, as it invades the whole of the head and tail-coverts as well as the interior of the wing.

19. Aglaia Schrankii, Nob. *A. viridis nigro maculata, uropygio et medio corpore subtus luteo-aureis: fronte genisque nigris: remigibus rectricibusque fuscis externe cyaneo marginatis.*

Tanagra Schrankii, Spix, tab. 51, fig. 1 and 2. D'Orbign., pl. 24, fig. 1.

Closely resembling *Agl. punctata*, Edw., pl. 262, but differs in having the rump, and the middle of the body underneath golden yellow, and without spots.

20. Pipra striolata, Nob. *P. olivacea, subtus rufa, albo striata: pileo cristato coccineo.*

Exceedingly like the *Pipra strigilata* of the Prince Max. of Wied, from Brazil, but sufficiently distinguished by the under parts being rufescent striped with white, instead of white striped with rufous. Wagler describes, however, my species.

Mr. Blyth exhibited some portion of the skeleton of the Great Auk, *Alca impennis*, and proceeded to offer some observations on the distinctions subsisting between the Auks and the Penguins. He remarked that these two genera differ in the type of their skeleton as well as in the progressive changes and structure of their plumage, for which reason he had long wished to obtain a sight of the skeleton of the *Alca impennis*, with a view to ascertain to what extent the similarity of its mode of life to that of the Penguins would, in this species, modify the Auk type of structure. Through the kindness of his friend Mr. Bartlett, he had succeeded in obtaining the wing and leg bones of this remarkable bird, which had been left in a preserved skin, and which proved to resemble those of the Penguin genus in weightiness, if not in structure, the *humerus* possessing a very small internal cavity, while the *tibia* was completely filled with marrow. These bones were exhibited, together with the analogous bones of *Alca torda*, which latter were even proportionally considerably smaller, as well as lighter, and quite hollow. Mr. Blyth remarked that the gradual absorption of the marrow in the bones of other birds was about coincident with the developement of the volar organs; and stated the highly curious fact, on the authority of Mr. Gould, that the marrow was permanent in the leg bones of the genus *Cinclus*. He then made various observations on the structure of the northern or true *Alcadæ*, more particularly with relation to the developement of the air-cavities in the species which could sustain themselves on wing, observing, that in these the wings were reduced to the minimum extent adequate for aerial support, in order that they might be more effectual under water; and that when once the object of aerial flight was abandoned, as in the instances of the great Auk and Penguins, these organs were accordingly reduced to exactly that size, which was most efficient of all for subaquatic progression; species of an intermediate character of course never occurring. It was obvious that a high standard of respiration is necessary to enable the Puffin and its allies to maintain aerial flight with their short and narrow wings: and the great development of the lateral air-cavities in these birds, incidentally remarked by Mr. Ord (in his continuation of Wilson's Ornithology) in the particular instance of the Rotche, he believed bore reference to that especial object. Mr. Blyth also called attention to the resemblance of the Puffin's mode of flight to that of a Beetle, and stated that its actions when under water so much resembled those of the *Dyticidæ*, that whoever had seen the one could form a quite accurate notion of the other; the bird advancing solely by means of the wings, and the insect making use of only its middle pair of legs to oar itself along; a further striking resemblance was pointed out in this exterior conformation, being a beautiful instance of analogy or adaptation of two extremely dissimilar types to the same mode of life.

Mr. Gray communicated to the Meeting the following arrangement of the *Sorices*, accompanying his observations upon this group by the exhibition of the shrews in the Society's collection.

Mr. Gray remarked that Wagler, in the *Isis* for 1832, divided the European shrews into three genera, according to their habits and the structure of their teeth; and Duvernoy in 1834 or 1835, overlooking the natural characters pointed out for the groups by Wagler, divided them into artificial genera according to the size and form of the cutting teeth. On examining the species in the British Museum, Mr. Gray found it necessary to further divide them in the following manner; the various groups forming a series returning into itself.

A. *Land Shrews. Tail simple, feet not ciliated on the sides.*

1. *Corsira.*—Front lower cutting teeth sharp-edged, and toothed above: tail with short close-pressed hairs.
2. *Myosorex.*—Front lower cutting teeth sharp-edged, entire above: tail with short close-pressed hairs.
3. *Sorex.*—Front lower cutting teeth rounded, and simple above: tail with short hairs and longer scattered bristles.

B. *Water Shrews. Tail with a series of bristles beneath: feet and toes ciliated on the sides.*

4. *Amphisorex.*—Front lower cutting teeth simple: 4 hinder cutting teeth gradually smaller, hinder very small.
5. *Crossopus.*—Front lower cutting teeth sharp-edged, and toothed above: hinder cutting teeth rapidly smaller.

1. CORSIRA, Gray. *Sorex*, Wagler? *Hydrosorex* part, Duvernoy[*].

Head elongate, muzzle slender, produced; ears hid in the fur. Tail elongate, slender, when young round, becoming quadrangular, covered with short, rigid, close-pressed hairs, (not ciliated,); feet simple, not ciliated; front wrist bearded beneath. Skull elongate. Teeth coloured; cutting teeth $\frac{12}{6}$, large, two upper central, strong, nearly equally bifid, hinder ones rapidly decreasing in size : two central lower elongate, above sharp-edged, and toothed; grinders $\frac{4}{3}$, moderate.

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[*] Since these observations were made, M. Duvernoy has transferred his name of *Hydrosorex* to the group which he had formerly named *Amphisorex*, and *vice versâ*. The references in the text are to his earlier arrangement.

Like *Crossopus*, but the tail and feet not ciliated, and the nose more produced.

* *Tail moderate. Upper cutting teeth rather large, grinders moderate.*

1. *Corsira vulgaris.* (*Common Shrew*, Shaw.)

Sorex vulgaris, Linn. Mus. Ad. 10.

Sorex araneus, Linn. F. Suec.—Jenyns's Man. Brit. Anim. 17. Mag. Zool. and Bot. ii. 27. t. 1. f. 2.

Sorex tetragonurus, Hermann, Obs. Zool. 48. Geoff. Ann. Mus. xvii. t. 2. f. 3. *Sorex* (*Hydrosorex*) *tetragonurus*, Duvernoy, Mem. Nat. Hist. Strasb. ii. t.

S. cunicularia, and *S. eremica*, Bechst.

Fœtid Shrew, Penn.

Inhab. N. Europe, Sweden, England. Brit. Mus.

2. *Corsira Forsteri.* (*American Shrew.*)

Sorex Forsteri, Richardson, Fauna A. B.—Gapper, Zool. Jour. v. t. 7.

Inhab. N. America. Mus. Dr. Richardson, and Roy. Inst. Bristol.

This is probably the genus *Sorex* as restricted by Wagler, to which he refers *Sorex pygmæus*, Pallas, and three of his species, *S. rhinolophus*, *S. concinnus* and *S. megalodon*, which are probably only varieties of *vulgaris* : here also perhaps should be added *S. constrictus*, Geoffroy, which agrees with them in the ears being hid, and in the face being lengthened. See Ann. Mus. xvii. t. 3. and 4.: see also *S. longirostris*, *S. Cooperi*, *S. Richardsonii*, Bachman.

*** *Tail short ; fore feet strong.* Blarina.

3. *Corsira* (*Blarina*) *talpoides.*

Sorex talpoides. Gapper, Zool. Jour. v. t. 8.

Inhab. N. America. Mus. R. Inst. Bristol.

To this section probably should be referred *Sorex brevicaudatus* and *S. parvus*, Say, *S. Dekayi*, *S. personatus*, Geoffroy, *S. Carolinensis*, and *S. cinereus*, Bachman.

2. MYOSOREX, Gray. Head elongate, ears hid under the soft fur; tail elongate, slender, covered with short, rigid, close-pressed hairs, when old quadrangular; feet and toes not ciliated: teeth white; cutting teeth $\frac{8}{6}$, two upper central unequally bifid, the second lateral moderate, the third very small, rudimentary, the fourth small but larger than the third. Front lower cutting teeth elongate, with an entire sharp upper edge ; second and third lateral teeth small, simple, crowded on the base of the front ones.

Myosorex varius.

Sorex varius, Smuts, p. 108. *Sorex cinnamomeus.* Licht. Saugth. *t.* ?.

Inhab. Cape of Good Hope. Mus. Zool. Soc.

Like *Sorex pilorides* in appearance, but at once known by the shape of the tail and lower cutting teeth. Teeth shining white.

3. SOREX. Head elongate ; ears exposed ; fur soft, perpendicular : tail elongate, tapering, with whorled scales, covered with

short hairs and scattered longer bristles. Feet not ciliated; toes 5—5, free. Cutting teeth $\frac{8}{6}$ (or $\frac{10}{6}$?), white, the front upper unequally bifid, the 3 (or 4?) others becoming rapidly smaller to the last; front lower cutting teeth produced, upper edge rounded and entire.

a. *Larger, tail thick, tapering, sides with a white glandular spot.*

Sorex pilorides, Shaw.

Sorex gigantea, Geoff.

Inhab. India.

To this division should be referred *Sorex myosurus*, Geoff. Ann. Mus. xvii. t. 3. f. 2. 3. *S. crassicaudatus*, *S. capensis*, Geoff., *S. flavescens*, (C. G. H. Mus. Zool. Soc.) *S. capensoides*, (C. G. H. Mus. Zool. Soc.) *S. pulchellus*, and *S. pumilus* if they are all distinct from one another. Gmelin in the description of the latter, probably misled by the plate, considers the scattered longer hairs as forming a subdistichous tail.

b. *Smaller*; *tail very slender*. *Crocidura*, Wagler. *Sorex*, Duvernoy. *Sunkus*, Ehrenb.

1. *Sorex araneus*, Schreb. t. 160. (*French Shrew.*) Pale grey brown, paler beneath.

Sorex araneus, Schreb. t. 160. Geoff.—Duvernoy, Mem. N. H. Strasb. ii. t. cop. Jenyns, Mag. Zool. and Bot. ii. t. 1. f. 1.

Inhab. Europe, France. Brit. Mus.

Cutting teeth $\frac{3}{2}$, small.

2. *Sorex leucodon*, Herm. (*White toothed Shrew*, Penn.) Black brown, whitish beneath.

Inhab. Europe, France. Brit. Mus.

See also *Sorex etruscus*, Sav. *Crocidura major*, *C. rufa*, *C. moschata*, and *C. poliogaster*, of Wagler, which are probably only varieties of *S. araneus*.

4. AMPHISOREX, Duvernoy. Head elongate, ears entirely hid. Tail elongate, slender, covered with short close-pressed hairs, when young round, becoming subquadrangular; under side and edge of the feet ciliated with a series of mobile bristles. Skull elongate, muzzle narrow; cutting teeth $\frac{10}{6}$; two centre upper unequally bifid, the three next on each side gradually smaller, the hinder very small, two lower central simple. Grinders $\frac{4}{3}$, rather large.

This agrees with *Crossopus* in the structure of the tail and feet, and in its aquatic habits, but differs in the form of the teeth.

1. *Amphisorex Pennantii*. (*Pennant's Water-shrew.*)

Sorex fodiens. Flem.—Jenyns's Brit. Anim.—Mag. of Zool. and Bot. ii. t. 1. f. 4.

Water Shrew. Penn.—Don.—Bell, Brit. Mam.

Inhab. Europe, England. Brit. Mus.

2. *Amphisorex ciliatus*, (*Black water shrew.*)

Sorex ciliatus, Sow. Brit. Misc. (1806)

Sorex remifer, Geoff. Ann. Mus. (1811) xvii. t. 1. f. 1.

Inhab. Europe, England and France. Mus. Brit.

Duvernoy describes another species under the name of *Amph. Hermannii.*

3. *Amphisorex palustris.*

Sorex palustris, Richardson, Faun. Amer. Bor.

Inhab. N. America. Mus. Richardson.

5. Crossopus (part) Wagler, 1832. *Hydrosorex* (part) Duvernoy, 1835. *Pinalia*, Gray, MSS.

Head elongate. Ears hid in the fur, valvular. Tail elongate, squarish, with short close pressed, rigid hairs, grooved, and with a row of long bristles beneath the tip. Hind feet ciliated with mobile bristles. Cutting teeth $\frac{12}{6}$, the two upper central strong, equally nicked; hinder upper rapidly decreasing in size: the two central lower cutting teeth flattened, sharp edged, and toothed above.

Crossopus Daubentonii, (*White-bellied water shrew*).

Sorex fodiens, Pallas? Duvernoy. *S. carinatus*, Herm. Geoff. A. M.—*S. canaliculatus*, Lynge. *S. Daubentonii*, Erxl.

Europe, France. Brit. Mus.

Brehm has described what he considers three German species allied to *S. fodiens* under the name of *S. amphibius*, *S. natans*, and *S. stagnalis*; Wagler, two others which he calls *C. musculus* and *C. psilurus*. Duvernoy refers to *Hydrosorex*, *Sorex tetragonurus*, Hermann and Geoff. Ann. Mus. xvii. t. 2. f. 3, which being a land shrew, I have referred to the genus *Corsira*; see also *Sorex fimbripes*, Bachman.

A small collection of birds from Erzeroum in Persia, recently presented to the Society by Keith E. Abbott, Esq., Corr. Mem., was brought before the notice of the meeting, accompanied with the following observations by Mr. Gould:—

"Of the nine specimens composing this collection, I find eight are distinct species, two of which are known to inhabit Britain, and six, including these two, belong to the Fauna of Europe; the remaining two I have no hesitation in considering as undescribed species, though referable to European types, being closely allied to the *Fringilla nivalis* and *Alauda alpestris* of authors. The great length of wing, square tail, and other prominent characters presented by *Fringilla nivalis* would seem to indicate the propriety of separating it from the rest of the *Fringillidæ*, in which case the present species will probably be placed along with it in a distinct genus, which it appears to me would exhibit the same relation to *Fringilla*, as *Plectrophanes* does to *Emberiza*.

"The Lark is a second example of that singular form distinguished by lengthened tufts on each side of the head resembling horns, and for which *Al. penicillata* will, perhaps, serve as an appropriate specific designation.

"The remaining species are *Lanius minor*, *Phœnicura ruticilla*, *Alauda calandra*, *Al. rupestris*, *Pyrgita petronia*, *Linaria cannabina*.

"I would observe that the collection though small is a most interesting one, since it adds to ornithology two new examples of forms, previously known to us by only solitary species; and I would remark that collections from this part of the world are almost sure to be productive of highly interesting results."

The two new species noticed by Mr. Gould in the above collection were characterised as

Alauda Penicillata. *Al. fronte, mento, auricularibus, abdomine, pectore alisque subtùs albis; fasciâ super frontem, peni-*

cillis capitis lateralibus et lineâ super nares latè per genas excurrente, colloque anteriori nigris; summo capite et nuchâ vinaceo-cinereis; corpore suprà cinereo; remigibus alarum cinereo-fuscis, remige primo externè albo; rectricibus caudæ duabus intermediis fuscis, ad marginem pallidioribus; reliquis nigrescentibus externâ utrinque albo marginatâ; rostro pedibusque nigris.

Long. tot. unc. 8; *alæ*, $4\frac{1}{2}$; *caud.*, 3; *rost.*, $\frac{4}{5}$; *tars.*, 1.

Hab. Erzeroum.

FRINGILLA SANGUINEA. *Fring. brunnea, summo capite nigro; remigum pogoniis externis sanguineo lavatis; primariis nigris; secondariis nigris, ad apices albis; tectricibus caudæ et regione circum-oculari sanguineo lavatis; rectricibus caudæ duabus intermediis nigris, reliquis plus minusve albo notatis, externâ utrinque ferè albâ; rostro flavo; pedibus fuscis.*

Long. tot. 6 unc. $\frac{3}{4}$; *alæ*, 4; *caud.*, $2\frac{1}{2}$; *rost.*, $\frac{2}{3}$; *tars.*, $\frac{3}{4}$.

Hab. Erzeroum.

Mr. Gould afterwards described a new *Ibis* from Hayti, presented by John Hearne, Esq., Corr. Mem., as

IBIS ERYTHRORHYNCHA. *Ib. dorso, alis caudâque metallicè viridibus; capite colloque superiore nigrescenti-cinereis, albo sparsis; corpore subtùs nigrescenti-cinereo; rostro pedibusque rubris; rostro ad basin nigro.*

Hab. Hayti.

Mr. Yarrell exhibited a quill from the wing of a Harpy Eagle, which had died while in the Menagerie of the Earl of Derby, and which was found upon examination to be infested with a great number of a species of *Pediculus*. It appeared that these minute creatures had chosen for their place of retreat the hollow of the large quill-feathers; and the specimens forwarded to Mr. Yarrell by the President were filled with their *exuviæ*; two circular apertures situated near the base of the quill afforded the animals access to its interior.

A specimen of the White-bait presented to the Society by Mr. Williams, was exhibited by Mr. Yarrell in order to show the large size sometimes attained by this species; its dimensions were as follow:

Entire length 6 inches.

Depth, measured about midway between the dorsal fin and the extremity of the head, 1 inch 2 lines.

A collection of insects were upon the table which had been collected at Manilla by Mr. Cuming, at whose request Mr. Westwood had furnished the following descriptions of some of the more interesting species for insertion in the Society's Proceedings.

COLLYRIS (COLLIURIS Latr.) FEMORATA (albitarsis Erichs.?) *affinis* C. Robynsii *et lugubris*, V. L. *C. capite thoraceque violaceis, labro 7-dentato, antennis capite longioribus, fere filiformibus, articulis 3 et 4 annulo apicali,* 5^{to} *in medio, et basi* 6^{to} *et* 7^{mo} *fulvis, palporum labialium articulo basali albo; thorace strigis nonnullis transversis in parte anticâ cum punctis paucis posticis;*

elytris æneo-cyaneis, valde punctatis, punctis distinctis, versus apicem punctis multo minoribus, apice ipso truncato emarginato; pedibus cyaneis, femoribus ferrugineis, tarsis piceo-nigris, (duobus posticis albidis in mare exceptis.)

Long. corp. ♂. lin. 6; ♀ lin. 7.

Obs. The possession of both sexes of this insect agreeing precisely together, except in size and the colour of the posterior *tarsi*, induces me to give it as a distinct species, since on comparison, its characters will not agree precisely with those of the species previously described by Dejean, MacLeay, Van der Linden, &c.

Therates coracina. Erichs. Act. Acad. Cæs. Nat. Cur. 16. Suppl. *T. nigra nitidissima, elytris nitore sub purpureo nitentibus, his tuberculo basali alteroque minori ante medium; labro, antennarum articulo basali, abdomine, pedibusque luteis, tarsorum articulo 1^mo et 2^do ad apicem, cæteris fuscis, mandibulis luteis, dentibus nigris.*

Long. corp. lin. 9½.

Morio orientalis. Dejean Species Gen. i. p. 433.

Clivina castanea. *C. capite thoraceque castaneis, elytris pedibusque pallidioribus. Cl. Fossori dimidio major, capite minori convexo lateribus valde impresso, fronte puncto minuto nec stria longitudinali impressa, thorace subquadrato (postice parum latiori) ad angulos posticos impresso, elytris elongatis parallelis sub-punctato-striatis punctisque tribus majoribus in striam tertiam, femoribus anticis crassis, haud dentatis, tibiis anticis extus dentibus tribus elongatis.*

Long. corp. lin. 3½.

Nigidius lævicollis. *N. niger nitidus, capite supra depresso punctato, thoracis dorso lævi, lateribus punctatis margineque antico simplici tuberculo minutissimo vix apparenti, elytris inter strias elevatas triplici punctorum impressorum ordine instructis, tibiis anticis 6 dentatis.*

Long. corp. lin. 9.

Prionocerus cæruleipennis. Perty, Obs. Coleopt. Ind. Orient. p. 33.

Rhynchites manillensis. *R. oblongus, cyaneus, nitidus, rostro longiori nigro, punctato, lineis duabus supra ad basin impressis, thorace conico, punctis minutissimis, longitudinaliter haud canaliculato, impressione transversa cum margine postico parallela, elytris magis cæruleis basi-virescentibus punctato-striatis, corpore subtus et femoribus cyaneis, tibiis tarsis et antennis nigris.*

Long. corp. (*cum rostro*) lin. 3.

Lamia pulchellator. Affinis L. Rubo et Sehestedii. *L. luteo-fusca, sericea, thorace utrinque spina armato punctisque duobus nigris ante medium disci, elytris basi scabris, singulo maculis 4^tis irregularibus lacteis, scil. 1^ma majori obliqua marginali, ante medium locata, 2^da media, ovata prope suturam, 3^tia obliqua marginali, 4^ta versus apicem suturæ, maculisque nonnullis minoribus versus apicem elytrorum, in speciminibus variis vari-*

*antibus, et irregularibus, ejusdem coloris; **antennis concoloribus**, apicibus articulorum obscurioribus.*

Long. corp. lin. 11—16.

Eurycephalus nigripes. Dej. Catal.

Cerambyx nigripes. Oliv. G. 67. Sp. 68. t. 20. f. 149. ♀.

——————*maxillosus.* Oliv. G. 67. Sp. 69. t. 20. f. 147. ♂.

Obs. *Species valde varians, maribus, giganteis. In individuis Manillæ macula thoracis discoidalis multum magnitudine variat. In maribus macula communis nigra versus apicem elytrorum rotundata, nec ad apicem nec ad marginem elytrorum extensa. In fœminis vero apicem totum elytrorum occupat.*

Genus Colaspis, Scelodonta Subgenus novum.

Corpus breve, rugosum.

Caput oculis prominentibus fere thoracis latitudine.

Labrum parvum quadratum antice marginatum.

Mandibulæ parvæ acutæ subtus dente parvo ante apicem armatæ.

Maxillæ lobo interno truncato, externo distincto, tenui, longo acuto.

Palpi maxillares et labiales apice acutæ.

Antennæ longitudine thoracis articulo 2^{do} 3^{tio} breviori, articulis 5 ultimis majoribus.

Thorax fere rotundatus, postice parum latior. *Sterna* simplicia lata.

Elytra brevia obtusa, thorace dimidio latiora.

Femora omnia subtus dente armata. *Tibiæ* 4 posticæ ad apicem externe emarginatæ.

Scelodonta Curculionoides. *S. aureo-viridis cyaneo varia, capite viridi ruguloso-punctato vertice lineis tribus impressis antice conjunctis, lateralibus obliquis, antennis nigris, articulis basalibus viridibus; thorace aureo-viridi, utrinque macula oblonga extus lobata, cyanea; transverse anguloso; elytris rugulosis, punctis majoribus in lineas longitudinales irregulariter dispositis, aureo-viridibus fasciis tribus irregularibus suturaque cyaneis.*

Long. corp. lin. 3.

Forficula tarsata. *F. nigra, thorace postice et elytris punctis elevatis nitidis; capite nigro sericeo, antennis longis 25-articulatis, pedibus piceis, apice tibiarum tarsisque albidis, forcipe ♂ longissima, fere corporis longitudine gracili, e basi usque ad medium curvata, denticulis nonnullis internis armata; e medio fere ad apicem recta, apice ipso incurvo acuto; segmentis abdominis in ♀ tuberculis minutis elevatis scabris, serieque in singulo ad marginem posticum tuberculorum majorum, denteque obtuso porrecto in singulo segmento utrinque ad angulum lateralem posticum.*

Long. corp. ♂. lin. 7. *forcipis*, lin. 5. = 12.

Hymenotes. Genus novum e familia Locustidarum Tetrici affine.

Corpus valde compressum.

Caput mediocre, obliquum.

Antennæ breves gracillimæ, filiformes, articulo 1^{mo} crasso rotundato, 2^{do} multo minori, reliquis longitudine sensim crescentibus.

Prothorax maximus foliaceus, valde compressus folium aridum exacte referens, supra et ante caput angulariter porrectus, valde elevatus et postice supra abdomen protensus; parte posticâ subtus, pro receptione alarum et abdominis canaliculata, prosternum in collare pro receptione oris formatum.

Pedes inter se basi longe distantes, femoribus præsertim posticis foliaceis, tarsis 3-articulatis, articulo 2^{ndo} minutissimo. *Pulvilli* nulli.

Species 1. *Hymenotes rhombea.* Membracis r. Fabricius, Ent. Syst. 4. 8. 2. p. Syst. Rh. 7. Cicada r. Linn. Syst. Nat. 2. 704. Alatus.

Habitat in Jamaica. In Mus. Soc. Linn. Lond. olim Banks.

Species 2. Hymenotes 3-angularis. *H. fusca, prothorace subtriangulari, margine, e fronte ad medium integro et curvato, dein ad apicem obliquo, serrato, femoribus anticis vix foliaceis, posticis latioribus, supra irregulariter incisis.*

Long. corp. lin. 5½. Long. *prothoracis* lin. 8.

Fulgora apicalis. Westw. Monogr. Fulg. Trans. Soc. Linn. inedit.

Machaerota ensifera. Burmeister, Handb. der Ent. 2. p. 128.

Centrotus bifoliatus. *C. fuscus punctatus prothorace antice in cornu longissimum erectum conicum, postice setigerum elevato; apice bifido, parte bifida fere longitudine cornû, retro extensa, cum apice extremo singuli dilatato, acuto; parte postica prothoracis compressa, longitudine corporis apice sensim attenuato et paullo deflexo-curvato, prothorace in medio, supra dorsum, fascia lata albida; hemelytris fuscis punctis nonnullis obliquis pallidis ad marginem internum, tibiis anticis latioribus, posticis gracilibus.*

Long. corp. lin. 2½. Long. e basi usque ad apicem cornu prothoracis, lin. 6.

Obs. Valde affinis Centr. Hardwickei, Kirby in Loudon's Mag. Nat. ii. p. 21. a. e Nepalia.

Centrotus horrificus. *C. fuscus rude punctatus, abdomine nigro, punctis majoribus; prothoracis parte antica in cornua duo elongata erecta divergentia setigera, apice singuli dilatato et acute emarginato, producta; parte postica, abdominis longitudine, basi (supra scutellum distinctum bifidum) in nodum setigerum curvata, nodoque paullo ante apice multo majori elevato-compresso supra rotundato, setigero, armata; tibiis 4 anticis oblongo-ovatis, hemelytrorum venis basalibus tuberculatis.*

Long. corp. lin. 2.

Reduvius tibialis. *R. amœno*, Guér. (Icon. R. An. Ins. pl. 56. f. 17.) *valde affinis, capite postice magis attenuato. Niger, punctatus, thoracis lobo antico parvo tuberculis duobus elevatis armato, hemelytris fuscis, plaga obliqua media, maculaque minori ovata subapicali albido-hyalinis, abdominis lateribus valde dilatatis, antennis, rostro, pedibusque rubris, femoribus nigris apice rubris.*

Long. corp. lin. 12. Expans. *alar.* lin. 19.

November 28, 1837.

Richard Owen, Esq., in the Chair.

Mr. Ogilby brought before the notice of the Society a new species of *Phalanger*, hitherto confounded with ***Ph. Cookii***, but possessing distinctive characters, which made Mr. Ogilby determine to separate it from that species under the name of ***Ph. Viverrina***. It may be readily distinguished from ***Ph. Cookii*** by its superior size, dark ashy brown colour, and white ears, and by the absence of the clear red tinge which is so conspicuous on the throat, flanks and extremities of that species. Its characters, however, are in other respects much the same: it has the same small round ears, the same long slender tail, similarly tipt with white, and the same division of the fingers into two groups, which Mr. Ogilby formerly pointed out as characteristic of the ***Ph. Cookii***, and which led him to distinguish that species from the other *Phalangers*, as a subgenus, under the name of ***Pseudocheirus***. The two species distinguished on the present occasion differ in habitat, as well as in the characters pointed out; the ***Ph. Cookii*** being confined to continental Australia, whilst the ***Ph. Viverrina*** is only found in the neighbouring island of Van Diemen's Land.

Mr. Gray then laid before the Meeting a general arrangement of Reptiles, and observed, that since the publication of his *Synopsis Reptilium* he had found it necessary to modify the arrangement which he had adopted in that work, and he now proposes to divide the class *Reptilia* into the following orders:

1st. *Squamata,* or Scaly Reptiles, being the typical group, and including 1st, *Saurians,* and 2nd, *Ophidians*;

2nd. The annectant group *Cataphracta,* or shielded Reptiles, containing 3rd, *Amphisbænians*; 4th, *Chelonians*; and, 5th, *Emydosaurians*.

Mr. Gray observed that in his previous arrangement he had foreseen the difficulty connected with the *Amphisbænians,* and hesitated to make an order of a group then containing so small a number of species; such extensive additions however have resulted from the recent labours of Zoologists that the genera now exceed in number the amount of species formerly known.

Mr. Gray then proceeded to remark that the class *Reptilia* exhibits a regular series of affinities returning into each other, so as to present a circular disposition; and he also observed that many points of resemblance may be noticed between the *Saurians* and the *Primates*, the *Ophidians* and the *Feræ*, and the *Chelonians* and *Ungulata*; but that the resemblance of the *Amphisbænians* and the *Emydosaurians* to the *Glires* and the *Cetacea* is not so evident; though the *Emydo-saurians* among the *Reptilia,* like the *Cetacea* among the *Mammalia,* are the most truly aquatic of their class.

Mr. Gray then proposed to divide the *Saurians* into the following five sub-divisions :

1. *Pachyglossæ*, or thick-tongued Lizards, including, 1st. the Nocturnal, or family of the *Geckoes* ; and, 2nd. the Diurnal, as the *Chameleons* and *Agamas* of the Old World, and the *Guanas* (*Iguanidæ*) of the New World.

2. *Leptoglossæ*, or slender-tongued Lizards, including three sections characterized by the form of the tongue, containing, 1. the families of *Lacertidæ, Zonuridæ, Cercosauridæ, Cherocolidæ, Chamæsauridæ, Helodermidæ* ; 2. *Monitoridæ* ; 3, *Scincidæ*.

Mr. Gray then laid before the Society a catalogue containing a list of the Slender-Tongued *Saurians* in the collections of the British Museum and the Zoological Society, and the descriptions of many new genera and species.

Mr. Gray afterwards exhibited from the collection of the Earl of Derby a new Fox from Senegal, and a very young specimen of *Genetta Senegalensis*, which he remarked corresponded exactly with the adult animal in the peculiar form of the naked band on the soles of the hind feet.

The new fox he designated as

C. Vulpes dorsalis, (the Senegal Fox). Fur greyish-white, varied with black tips to the hairs ; face rather yellowish ; fore and hind limbs rather pale foxy ; back with a dark brown dorsal streak, varied with black ; chin and belly whitish ; tail rather slender, black tipped : length of body and head 15, tail 8 inches. The black tips of the hairs form indistinct spots on the sides of the back, a streak on the upper part of the base, and a black tip to the tail, where there are a few elongate white hairs. There is a very narrow black streak on the front of the fore legs. This species is very like the small Indian fox, (*V. Bengalensis*, Gray,) and the *C. Caama* of Dr. Smith, but it is smaller, and has a less bushy tail, and a distinct dorsal streak, not found on either of them. It has not the black lips, nor the black spot on the hinder edge of the thighs of the Cape species.

The Earl of Derby having forwarded to the Society a number of interesting birds, with a view to their exhibition at one of the scientific meetings, Mr. Gould, at the request of the Chairman, remarked upon such of them as were especially worthy of notice, and pointed out one new species of Grouse belonging to Mr. Swainson's subgenus *Lyurus*, which Mr. Gould characterized as

Lyurus Derbianus. *Lyu. vertice, collo, corporeque suprà metallice nigrescenti-cyaneis, nitide brunneo, fasciatis et irroratis; tectricibus alæ majoribus ad bases et apices albis; caudâ nigrâ, rectricibus externis brunneo irroratis; corpore subtùs nigrescenti-brunneo, albo brunneoque irrorato; crisso albo; femoribus albis; tarsis obscurè brunneis; rostro digitisque brunneis.*

Long. tot. unc. 15; *rostri*, 1; *alæ*, 9; *caudæ*, 7; *tarsi*, 2.

Obs. The subgenus *Lyurus* has been separated from *Tetrao* by Mr. Swainson, and in this species the tail very closely approximates in form to that of the common black cock, the type of Mr. Swainson's section.

The bird above described has every appearance of being adult, and, as far as I have been enabled to ascertain, is from Siberia; it is less in all its proportion than the common species, but has the tail-feathers more developed; there are traces of some white feathers about the throat and cheeks, but as the markings thus produced are not regular, I have reason to consider it as accidental. I have given it the specific appellation of *Derbianus,* in honour of the Earl of Derby, in whose collection it is contained.

Mr. Gould afterwards exhibited, from his own collection of Australian birds, an entirely new group of four species, for which no generic title has yet been applied, so far as he was aware, and but one species only characterized, by Messrs. Vigors and Horsfield, under the name of *Acantheza frontalis*; for this genus Mr. Gould proposed the generic name of *Sericornis,* and for the three species, those of *citreo-gularis, humilis,* and *parvulus.*

Family SAXICOLINÆ.

Genus SERICORNIS.

Rostrum robustum, rectum, caputque quoad longitudinem ferè æquans, ad apicem compressum, et indentatum.

Nares basales, laterales, ovales, et operculo tectæ.

Alæ mediocres, rotundatæ ; remige primo perbrevi, quarto, quinto, atque sexto longissimis et inter se ferè æqualibus.

Cauda mediocris et æqualis.

Tarsi elongati ; *digitus* posticus cum ungue validus, digitum intermedium ferè æquans ; digitis externis æqualibus.

Plumæ molles et sericeæ.

Typus est *Acanthiza frontalis,* Vig. and Horsf.

SERICORNIS HUMILIS. *Ser. loro nigrescenti-fusco ; et super hoc strigâ indistinctâ albâ ; vertice, corpore suprà, alis, caudâque olivaceis, rubro lavatis ; alâ spuriâ nigrescente ; plumis singulis albo marginatis ; gulâ cinereâ fusco guttatâ ; pectore abdomineque medio, fuscescenti-flavis, illo fusco indistincte guttato ; lateribus castaneis ; rostro nigrescente ; pedibus fuscis.*

Long. tot. 5 unc. ; *rostri,* $\frac{7}{8}$; *alæ,* $2\frac{5}{8}$; *caudæ,* $2\frac{1}{8}$; *tarsi,* 1.

Hab. Terrâ Van Diemen.

SERICORNIS CITREOGULARIS. MAS. *Ser. loro, annulo circumoculari, plumisque auricularibus intensè nigrescenti-fuscis ; lineâ flavescente a naribus super oculos excurrente ; vertice, corporeque suprà, rectricibus, secondariisque alarum, caudâque rufo-brunneis ; primariis ad marginem externum olivaceis ; alâ spuriâ nigrescente ; gulâ citrinâ ; pectore lateribusque olivaceo-fuscis ; abdomine medio albo ; rostro nigro ; pedibus brunneis.*

Long. tot. $5\frac{1}{2}$ unc. ; *rostri,* $\frac{3}{4}$; *alæ,* $2\frac{3}{4}$; *caudæ,* $2\frac{3}{8}$; *tarsi,* $1\frac{1}{8}$.

Hab. Novâ Cambriâ Australi.

Obs. The female is less brilliant in all her markings than the male.

SERICORNIS PARVULUS. *Ser. loro pallidè fusco, et super hoc strigâ cinereâ; vertice, corpore suprà, alis, caudâque olivaceo-fuscis, rubro lavatis; alâ spuriâ nigrescente, plumis singulis albo marginatis; pectore, abdomineque medio citrinis, lateribus olivaceo-fuscis; rostro nigrescente; pedibus luteis.*

Long. tot. 4 unc.; *rostri*, $\frac{5}{8}$; *alæ*, $1\frac{7}{8}$; *caudæ*, $1\frac{3}{4}$; *tarsi*, $\frac{3}{4}$.
Hab. in orâ orientali Novæ Hollandiæ.

December 12, 1837.

Thomas Bell, Esq., in the Chair.

Mr. Gray read a paper, consisting of a revision of the genera and species of venomous, prehensile-tailed and water snakes, with the descriptions of some new species contained in the British Museum collection, and that of the Zoological Society. Mr. Gray stated that the family of *Crotalidæ* in this catalogue includes twelve genera and twenty-five species; of which six genera and ten species are confined to America, three genera and twelve species to Asia and its islands, while one genus and two species are peculiar to Africa. Schlegel in his recently published work, describes seventeen species, and there are nineteen species in the National collection.

The family of *Viperidæ* contains eight genera and ten species, of which two genera and three species are from Asia, four genera and nine species from Africa; two genera and four species occur in Europe; and one genus, including but one species, inhabits Australia. All the genera are confined to a single quarter of the globe but *Echis*, which has one species from Africa and the other from India. Schlegel described ten species, but then he has referred some of the species which have not come under his examination, without sufficient consideration, to the more common species. Specimens of all the species but one noticed in the last family, are in the collection at the British Museum.

The family of *Boidæ* contains seventeen genera and twenty-seven species; of these seven genera and nine species are confined to tropical America, three genera and four species are found in Africa, six genera and eight species in Asia, three genera and four species are found in New Holland, and one species in Europe. The species of the genus *Python* are found in Africa, Asia, and New Holland: but each species has its peculiar country, and one species of *Eryx* is common to South Europe and North Africa.

The family of *Hydridæ* consists of twenty-three genera and forty-eight species, of which twenty are found in the Indian Ocean, and sixteen in the salt-water ditches of India and the neighbouring islands, and six are found in similar situations in tropical America. Schlegel described only twenty-seven species, and thirty of the species described in the present Catalogue are in the British Museum.

Mr. Yarrell, on the part of Mr. John Leadbeater, exhibited to the Meeting a male Hybrid, the produce of a Pheasant and a Black Grouse. Mr. Yarrell observed that this was the third specimen which had been sent to the Society for exhibition within a comparatively short space of time. The first bird, from Cornwall, was more of a Grouse in appearance than a Pheasant: the second, from Shropshire, was more pheasant-like; but the present bird was deci-

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dedly intermediate, exhibiting characters belonging to both. The head, neck, and breast were of a rich dark maroon colour, the feathers on the breast showing the darker crescentic tips; the upper part of the *tarsi* were covered with feathers; the back and wings mottled blackish gray, like that of a young Black Cock after his first moult, but with some indications of brown; the feathers of the tail rather short, but straight, pointed, graduated, and pheasant-like. Mr. Yarrel also remarked that this bird more closely resembled the Hybrid discovered by Gilbert White than any of the previous specimens which he had examined.

Mr. Gould then brought before the notice of the Meeting a valuable collection of Birds from the Himalaya Mountains, recently presented to the Society's Museum, by James Farell, Esq., consisting of 114 specimens, among which he characterised the following new species.

ATHENE ERYTHROPTERUS. *Ath. disco faciali, capite corporeque lineis fuscis et fulvescenti-albis, alternate fasciatis; lateribus gulæ, femoribus crissoque cinerescenti-albis; primariis secondariisque rufis et fuscis fasciis distinctis, latioribus quam corporis; caudâ caryophillaceâ fasciis angustis albis crebre notatâ; rostro pedibusque flavescenti-olivaceis.*

Long. tot. $9\frac{1}{2}$ unc.; *alæ*, $4\frac{1}{2}$; *caudæ*, 3; *tarsi*, $1\frac{1}{4}$.

Obs. Nearly allied to but less in size than *Athene cuculoides* (*Noctua cuculoides*, Proc. of Comm. Sci. and Corr. of Zool. Soc., Part I.)

TURDUS UNICOLOR. *Turd. cinereus; abdomine medio, crissoque albis; humeris subtùs rufis; rostro pedibusque livido-fuscis.*

Long. tot. $9\frac{1}{4}$ unc.; *rostri*, 1; *alæ*, $3\frac{1}{4}$; *caudæ*, $3\frac{5}{8}$; *tarsi*, $1\frac{1}{8}$.

Obs. Size of the Common Thrush. The young differs in having the gray strongly tinged with brownish olive, and the throat grayish white, bounded down each side with spots of reddish brown.

OREOCINCLA PARVIROSTRIS. *Or. capite, nuchâ, pectore, lateribus corporeque supra olivaceo-fuscis; singulis plumis versus apicem nitide cervino lavatis, et nigro-fusco late marginatis; primariis obscure fuscis, pogoniis externis nitide cervino marginatis, pogoniis internis ad bases cervino-albis; tectricibus majoribus alarum obscure cervinis; alâ spuriosâ eodem colore externe marginatâ; caudâ fuscâ margine subfusco, apiceque cinerescenti-albo; gulâ, abdomine medio, uropygio, crissoque albis; rostro pedibusque corneo-fuscis.*

Long. tot. 10 unc.; *rostri*, 1; *alæ*, $5\frac{1}{8}$; *caudæ*, 4; *tarsi*, $1\frac{1}{8}$.

Obs. This species has all the characters of the *Oreocincla varia* and *O. Whiteii*, but may be readily distinguished from them, by its much smaller size and its very diminutive bill.

CINCLIDIA. Genus novum.

Rostrum caput longitudine æquans, leviter arcuatum, ad apicem emarginatum ad latera compressum; *nares* basales, laterales, in

fossâ tribus vel quatuor setis ad basem instructâ; *alæ* brevissimæ, concavæ, rotundatæ: *remigibus* 6^{to} et 7^{mo} longioribus; *cauda* mediocris, rotundata; *tarsi* majusculi; *pedes* elongati; *digito* postico, medio longiore; *digitis* lateralibus æqualibus et fere usque ad articulum primum conjunctis.

CINCLIDIA PUNCTATA. *Cinc. summo capite, et nuchâ rufis, singulis plumis stemmatibus albicantibus; loro, plumis super-ocularibus cervino-albis ad apices nigris; auricularibus, lateribus colli, corpore supra, alis caudâque rufo-fuscis; pectore corporeque subtùs cervinis, singulis plumis maculâ fuscâ apicem versus longitudinaliter notatis; rostro pedibusque pallide fuscis.*
Long. tot. $6\frac{3}{4}$ unc.; *rostri*, $\frac{7}{8}$; *alæ*, $2\frac{5}{8}$; *caudæ*, 3; *tarsi*, 1.

BRACHYPUS PLUMIFERA. *Brac. capite, pectore, lateribus colli, gulâque nitide viridescenti-nigris; corpore, alisque olivaceo-flavis; primariis fuscis, olivaceo-flavo marginatis; secondariis, pogoniis internis fuscis; caudâ fuscâ; rostro pedibusque nigris.*
Long. tot. $7\frac{1}{2}$ unc.; *rostri*, $\frac{3}{4}$; *alæ*, $3\frac{1}{2}$; *caudæ*, $3\frac{1}{2}$; *tarsi*, $\frac{1}{2}$.

CUCULUS MICROPTERUS. *Cuc. summo capite, corpore supra alisque obscure plumbaceis; caudâ nigrescenti-plumbaceâ, plùs minùsve albo notatâ; primariis interne ad bases maculis oblongis albisque notatis; gutture pectoreque cinereis; corpore subtùs albo, nigro crebre fasciato; rostro ad apicem nigro, ad basin carneo.*
Long. tot. 12 unc.; *rostri*, 1; *alæ*, $7\frac{1}{2}$; *caudæ*, $6\frac{1}{2}$; *tarsi*, $\frac{3}{4}$.

POMATORHINUS LEUCOGASTER. *Pom. strigâ albâ super-oculari, a rostro per collum excurrente; loro, lineâ infra-oculari, auricularibusque nigris; summo capite, corpore supra, alis crissoque olivaceo-fuscis; caudâ fuscâ; lateribus colli, pectoris, corporisque nitidè rufis; gulâ, pectore, abdomineque medio albis; rostro flavo; pedibus plumbaceis.*
Long. tot. 9 unc.; *rostri*, $1\frac{1}{8}$; *alæ*, $3\frac{3}{4}$; *caudæ*, 4; *tarsi*, $1\frac{1}{8}$.

December 26, 1837.

John Edward Gray, Esq., in the Chair.

Mr. Gould exhibited a very extensive series of Australian birds principally from his own collection, including about eighty new species, all of which were severally brought before the notice of the meeting, Mr. Gould remarking upon such of them as presented characters of novelty or importance. The names proposed by Mr. Gould for the birds forming this great addition to our knowledge of Australian ornithology, and their respective characters, are as follow:

HALIAETUS SPHENURUS. *Hal. capite, nuchâ, guttureque pallidè cervinis; corpore suprà alisque intensè fuscis, singulis plumis ad apicem pallidè cervinis; caudâ cuneiformi, ad basin albescenti-cervinâ, apicem versus fuscâ, ad apicem albâ; pectore fusco, plumis cervino marginatis; abdomine, cervino fuscoque picto, crisso, caudâque subtùs albis; rostro fusco; tarsis flavis.*

Long. tot. 32 unc.; *rostri*, 2; *alæ*, 25; *caudæ*, 14½; *tarsi*, 3½.

Hab. in terrâ Van Diemen.

Obs. The above description was taken from two specimens in the United Service Museum, which are doubtless male and female, but which are not quite mature.

This fine species would appear to represent the European *Haliaëtus albicillus* in Australia. In size it nearly equals the *Aquila fucosa*, and like that bird it has a wedge-shaped tail, a character common to many of the Raptorial birds of Australia.

HALIAETUS LEUCOSTERNUS. *Hal. capite, collo, pectore, abdomineque summo niveis; dorso, alis, abdomine imo, femoribus, crissoque lætè castaneis; primariis ad apicem nigris; caudâ castaneâ, subtùs pallidiore, rectricibus sex intermediis ad apicem cinerescentibus; rostro ad basin plumbaceo, ad apicem flavescente; pedibus flavescenti-plumbaceis.*

Long. tot. 22½ unc.; *rostri*, 1⅝; *alæ*, 15½; *caudæ*, 9; *tarsi*, 2.

Hab. in Australiâ.

Obs. This species is nearly allied to *Hal. Pondicerianus*, but differs from that bird in the smaller extent of the cere, and in the uniform snow-white colouring of the neck and chest.

PANDION LEUCOCEPHALUS. *Pand. vertice, nuchâ, gulâ, abdomine, femoribus, crissoque albis; plumis pectoris fusco ad apicem notatis; plumis auricularibus fuscescenti-nigris; colli lateribus fuscis; dorso, alis, caudâque brunneis, singulis plumis notâ albâ angustâ apicali ornatis; primariis nigris; rostro nigro; tarsis olivaceo-plumbaceis.*

Long. tot. 21 unc.; *rostri*, $1\frac{1}{2}$; *alæ*, $16\frac{1}{2}$; *caudæ*, 8; *tarsi*, $2\frac{1}{2}$.

Hab. in Australiâ.

Obs. I venture to characterise this bird as distinct from the *Pandion Haliaëtus*, as it appears to be always smaller in size, and is moreover said to have yellow *tarsi*. The individual from which my description was taken has this character to a certain extent, although a leaden tint pervades in some parts. I have never seen a specimen of *P. Haliaëtus* with so much white on the head and back of the neck as is found in the Australian bird.

FALCO FRONTATUS. *Falc. fronte cinerescenti; vertice, genis, plumis auricularibus, corporeque suprà cinerescenti-plumbaceis; primariis intùs maculis ovalibus cervinis ornatis; rectricibus caudæ duabus intermediis cinereis, nigro obscurè fasciatis, reliquis cinereo et rufescente alternatìm fasciatis; gulâ, pectoreque pallidè cervinis, hujus plumis in medio lineâ fuscâ notatis; corpore subtùs obscurè rufescenti-aurantiaco; rostro plumbaceo, cerâ pedibusque flavis.*

Long. tot. 12 unc.; *rostri*, $\frac{7}{8}$; *alæ*, $9\frac{1}{2}$; *caudæ*, $5\frac{1}{2}$; *tarsi*, $1\frac{1}{4}$.

Hab. in Novâ Cambriâ Australi.

Obs. I find the young of this species much darker than the adult, particularly in the markings of the chest and abdomen; the upper surface also has most of the feathers tinged with reddish brown, and the tail-feathers are tipped with this colour.

This species is nearly allied to *Falco subbuteo* and *F. Æsalon.*

FALCO MELANOGENYS. MAS. *Falc. capite toto fuscescenti-nigro; corpore suprà, alis, caudâque cinereo fuscoque alternatìm fasciatis; primariis extùs intensè fuscis, intùs cervino fasciatis; gulâ pectoreque cervinis; abdomine rufescenti-cinereo, guttis ovalibus intensè fuscis ornato; lateribus crissoque rufescenti-cinereis, fasciis intensè fuscis contortìm notatis; rostro ad apicem plumbaceo, ad basin flavo; cerâ pedibusque flavis.*

FŒM. *A mari differt staturâ majore, necnon colore gulæ, pectoris, abdominisque intensiore.*

MAS. Long. tot. 15 unc.; *rostri*, $1\frac{1}{8}$; *alæ*, $11\frac{1}{2}$; *caudæ*, $5\frac{3}{4}$; *tarsi*, $1\frac{1}{2}$.
FŒM. ———— 17 —; ——, $1\frac{3}{8}$; —, $13\frac{1}{2}$; ——, $6\frac{1}{2}$; ——, $1\frac{3}{4}$.

Hab. per totam Australiam.

Obs. This species is closely allied to the *Falco Peregrinus*, from which it may be at all times distinguished by the black colouring of the cheeks.

FALCO BRUNNEUS. *Falc. capite, corporeque superiore intensè fuscis; primariis intùs notis albis triangularibus ornatis; caudâ lineis fuscescentibus septem obscurè et angustè fasciatis; gulâ, notâque ante oculos cervinis; pectore pallidè cervino, plumis lineâ fusco centrali notatis; corpore subtùs albo fuscoque commixtis ornato; iridibus flavis; rostro nigro; pedibus plumbaceis.*

Long. tot. 16 unc.; *rostri*, $1\frac{1}{3}$; *alæ*, 10; *caudæ*, $7\frac{1}{2}$; *tarsi*, $2\frac{1}{2}$.

Hab. in Novâ Zealandiâ.

Obs. In the Collection of the Zoological Society.

IERACIDEA. Genus novum.

Rostrum, ut in genere *Falco* dicto; *alis* attamen minùs rigidis, remige tertio longissimo; *tarsis* longioribus, gracilioribus, et anticè squamis hexagonalibus tectis; *digitis* gracilioribus, digito postico breviore, *unguibus* minùs robustis.

Typus est *Falco Berigora*, Vig. et Horsf.

LEPIDOGENYS SUBCRISTATUS. *Lep. vertice, genis, plumis auricularibus, dorsoque superiore fuscescenti-cinereis; occipite, cristâque occipitali nigrescenti-fuscis; dorso, scapularibusque fuscis, alis suprà fuscescenti-cinereis, subtùs argenteo-cinereis, primariis secondariisque fasciis duabus nigris notatis; uropygio, tectricibusque caudæ superioribus fuscis; caudâ fuscescenti-cinereâ, nigro fasciatâ, et ad apicem largè nigrâ; gulâ, pectore, humeri parte, crissoque, cinereis rufo tinctis; corpore subtùs pallidè cervino, castaneo fasciato; rostro pallidè plumbeo, tarsis flavis.*

Long. tot. 18 unc.; *rostri*, $1\frac{1}{4}$; *alæ*, 13; *caudæ*, $8\frac{1}{2}$; *tarsi*, $1\frac{1}{4}$.

Hab. in Novâ Cambriâ Australi.

Obs. This bird would belong to M. Lesson's genus *Lophotes*; but that term having been previously employed, I have been induced to adopt the generic title proposed by Mr. J. E. Gray in its stead. The form is somewhat allied to *Pernis*.

MILVUS AFFINIS. *Milv. plumis capitis, nuchæ, collique laterum rufescenti-cervinis, strigâ centrali fuscâ notatis; corpore suprà brunneo, tectricibus alarum rufescentibus; singulis plumis nigrâ lineâ centrali notatis et ad apicem pallidè brunneis; primariis nigris, secondariis nigrescentibus; caudâ fuscâ, nigrescente fasciatâ, et ad apicem cinereâ; gulâ fuscescenti-cervinâ, singulis plumis lineâ centrali nigrâ; corpore subtùs rufescenti-fusco, singulis plumis lineâ centrali fuscâ apud pectorales maximè conspicuâ ornatis; rostro nigro; pedibus flavescentibus.*

Long. tot. 21 unc.; *rostri*, $1\frac{1}{2}$; *alæ*, $15\frac{3}{4}$; *caudæ*, $10\frac{1}{2}$; *tarsi*, 2.

Hab. in Australiâ.

Obs. This species is very nearly allied to the *Milvus ater* of Europe: the circumstance of nearly the whole of the *Fauna* of Australia being distinct from those of all other parts of the world has induced me to separate it specifically from that bird; the chief difference is in its being somewhat smaller in size.

MILVUS ISURUS. *Milv. fronte, lineâque supra-oculari cervinis; singulis plumis, apice, lineâque centrali nigris notatis; vertice, dorso, lateribus colli, gutture, humeris suprà et subtùs, corporeque subtùs rufescenti-aurantiacis; plumis singulis verticis, occipitis, et præcipuè pectoris notam longitudinalem apicalemque nigram habentibus; dorso superiore, plumisque scapularibus intense fuscis; primariis ad apicem fuscis, nigro obscurè fasciatis, ad basin intùs cinereis; secondariis intensè fuscis nigro fasciatis; uropygio crissoque albis, nigro cervinoque fasciatis; caudâ ferè quadratâ, et cinereo-fuscâ; rectricibus, duabus externis utrinque exceptis, obscurè fasciis quatuor angustis nigris*

ornatis; omnibus ad apicem nigris; rostro fusco; cerâ, tarsisque flavis.

Long. tot. 20 unc.; *rostri*, $1\frac{3}{8}$; *alæ*, $81\frac{1}{2}$; *caudæ*, $8\frac{1}{4}$; *tarsi*, $1\frac{3}{4}$.

Hab. in Australiâ.

Obs. This species, the immediate locality of which is not known, offers the nearest approach to the Common Kite, *Milvus vulgaris*, that has yet been discovered; but is readily distinguished from that species by the square form of the tail.

ELANUS NOTATUS. *El. oculis nigro anguste circumdatis; fronte, lateribus faciei corporeque subtùs albis; nuchâ, dorso, scapularibus, tectricibusque caudæ majoribus delicatè cinereis; alis maximis ex partibus nigris, humeris subtùs albis; primariis suprà nigrescenti-cinereis, subtùs fusco-nigris; caudâ cinerescenti-albâ; rostro nigro; cerâ pedibusque aurantiaco-flavis.*

Long. tot. unc. 14; *alæ*, $11\frac{3}{4}$; *caudæ*, $6\frac{1}{4}$; *tarsi*, $1\frac{3}{8}$.

Hab. in Novâ Cambriâ Australi.

Obs. Distinguished from *Elanus melanopterus* by the oval spot of black on the under surface of the wing, whence its specific name; it also differs from *Elanus leucurus* in the form of the tail and other characters.

CIRCUS JARDINEI. MAS. *Circ. vertice, genis, plumisque auricularibus intensè castaneis, fusco longitudinalitèr notatis; disco fasciali, nuchâ, dorso superiore, pectore necnon dorso imo, scapularibusque, intensè cinereis, his albo levitèr notatis; humeris, alis subtùs, abdomine, femoribus, crissoque, castaneis, albo perpulchrè notatis; tectricibus alarum fusco-cineraceis, irregularitèr albo notatis; secondariis cineraceis, fasciis tribus fuscis angustè notatis, fasciâque latâ terminali; primariis ad basin cervinis, per reliquas partes nigris; tectricibus caudæ superioribus fuscis, fascias albas, apicemque album ostendentibus; caudâ cinereo fuscoque alternatìm fasciatâ; rostro nigro; pedibus flavis.*

Long. tot. 19 unc.; *alæ*, 16; *caudæ*, 10; *tarsi*, $3\frac{5}{8}$.

Hab. in Novâ Cambriâ Australi.

SYN. *Circus assimilis*, Jard. and Selb. Ill. Orn., vol. i. pl. 51, female?

Obs. I am induced to believe that the bird figured by Messrs. Jardine and Selby under the name of *Circus assimilis* will prove to be the female of this bird; but as I am not quite certain, I have thought it best to characterise the present bird under a new name.

ATHENE? FORTIS. *Ath. facie gulâque cinerescenti-albis; vertice, corporeque suprà fuscis, purpureo tinctis; scapularibus, secondariis tectricibusque alæ majoribus albo guttatis; primariis alternatìm fusco griseoque fasciatis; fasciis pallidis ad marginem externum albescentibus; caudâ fuscâ lineis sex vel septem cinerescentibus transversìm fasciatis, apice cinerescente; corpore subtùs brunneo alboque marmorato, hôc colore marginem plumarum ornante; tarsis ad digitos vestitis, fusco cervinoque*

marmoratis; rostro flavescenti-corneo; digitis longis, flavis, pilisque tectis.

Long. tot. $15\frac{1}{4}$ unc.; *alæ*, $11\frac{1}{2}$; *caudæ*, $7\frac{1}{2}$; *tarsi*, $1\frac{3}{4}$.
Hab. in Novâ Cambriâ Australi.

ATHENE? STRENUA. *Ath. vertice, corpore suprà, alis, caudâque intense fuscis, fasciis purpurescenti-brunneis transversìm ornatis; his majoribus pallidioribusque ad imum dorsum; secondariis, rectricibusque caudæ ad marginem internum, facie, gulâ, pectoreque superiore, badiis, plumis partium harum notâ brunneâ centrali ornatis; corpore subtùs albo, levitèr badio lavato, et fusco fasciato; rostro corneo ad basin, ad apicem nigro; pedibus flavis.*

Long. tot. 24 unc.; *rostri*, 2; *alæ*, 15; *caudæ*, $10\frac{1}{2}$; *tarsi*, $2\frac{1}{4}$.
Hab. in Novâ Cambriâ Australi.

HALCYON INCINCTUS. *Halc. fronte, medio et vertice nigrescenti-fuscis, leviter cæruleo tinctis; fronte in lateribus strigis badiis notatâ; occipite et nuchâ cyaneis; loro, lineâ infra-oculari auricularibusque nigris; plumis in fronte leviter badio marginatis; dorso medio lilacino viridi nitenti; humeris caudæ tectricibus majoribus et minoribus viridescenti-cæruleis; alis spuriosis, secondariisque cyaneis; primariis brunneis ad bases niveis, et cæruleo-viridi externè marginatis; tectricibus superioribus caudæ viridi-cæruleis, fulgore metallico; caudâ cyaneâ; gulâ albâ; pectore corporeque subtus pallidè badiis; mandibulâ superiori nigrâ; mandibulâ inferiori ad marginem apicemque nigrâ, ad basin carneâ; pedibus carneis.*

Long. tot. unc. 8; *rostri*, $1\frac{3}{4}$; *alæ*, $3\frac{5}{8}$; *caudæ*, $2\frac{1}{4}$; *tarsi*, $\frac{1}{2}$.
Hab. in Novâ Cambriâ Australi.
Obs. Nearly allied to *Halcyon MacLeayii* of Jardine and Selby.

CAPRIMULGIDÆ. *Fam.*

EUROSTOPODUS. Genus novum.

Rostrum quam in Caprimulgo longius et robustius; *nares* laterales et lineares; *rictus* setis brevibus, debilibus, divergentibusque instructus; *alæ* quam in Caprimulgo longiores et fortiores; *remigibus* 1mo et 2do longissimis et æqualibus; *cauda* ferè quadrata, mediocris; *tarsi* robusti, plumis anticè instructi; *digiti* breves, robusti, carnosi; *digiti* externi æquales et intermedio per dimidium, membranâ conjuncti; *digito* intermedio, *ungue* internè validè pectinato.

Typi sunt, *Caprimulgus guttatus*, in Linn. Trans., vol. xv. p. 192. *Caprimulgus albogularis*, Ibid. p. 194.

MYIAGRA NITIDA. *Myi. nigrescenti-viridi, fulgore metallico; abdomine tectricibusque caudæ inferioribus albis; rostro ad apicem nigro, hoc colore versus basin in cæruleum transeunte; pedibus fusco-nigris.*

Long. tot. unc. $6\frac{1}{2}$; *rostri*, $\frac{5}{8}$; *alæ*, $3\frac{1}{2}$; *caudæ*, $3\frac{1}{4}$; *tarsi*, $\frac{5}{8}$.

Hab. in Novâ Cambriâ Australi et terrâ Van Diemen.

Obs. Differs from *Myiagra plumbea* in its larger size, and in the darker and richer colouring of the plumage.

GRAUCALUS PARVIROSTRIS. *Grauc. fronte, facie, lateribus colli, gulâque nigris; vertice, corpore suprà, alisque in medio cinereis; primariis, secondariisque intùs nigrescentibus, griseo marginatis; caudâ nigrescente, ad basin cinereâ, ad apicem largè albâ, rectricibus intermediis exceptis; pectore cinereo; abdomine imo, alâ internâ, crissoque albis; lateribus, femoribusque pallidè cinereis; rostro pedibusque nigrescenti-fuscis.*

Long. tot. 12 unc.; *rostri*, $1\frac{1}{8}$; *alæ*, $7\frac{1}{2}$; *caudæ*, 6; *tarsi*, 1.

Hab. in Novâ Cambriâ Australi.

Obs. This species differs from *Grauc. melanops* principally in the much smaller size of the bill and the lighter tint of the grey.

GRAUCALUS MELANOTIS. *Grauc. loro, lineâ infra-oculari, plumisque auricularibus nigris; vertice, nuchâ, collique lateribus, dorso, uropygio, caudæ tectricibus, humerisque pallidè cinereis; primariis, secondariisque intùs nigrescenti-fuscis, cinereo marginatis; rectricibus caudæ nigrescenti-fuscis, ad basin cinereis, ad apicem largè albis; gulâ, pectore, lateribusque cinereis, fusco fasciatis; abdomine imo, femoribus crissoque, albis; rostro nigrescente ad apicem, ad basin rufescente; pedibus fuscis.*

Long. tot. 13 unc.; *rostri*, $1\frac{3}{8}$; *alæ*, $7\frac{3}{4}$; *caudæ*, $6\frac{1}{2}$; *tarsi*, $1\frac{1}{8}$.

Hab. in Novâ Cambriâ Australi.

Obs. Messrs. Vigors and Horsfield considered this bird as identical with the Papuan Crow of Latham, but on comparison I find this is not the case; it may ultimately prove to be an immature male, or a female of *Grauc. melanops*, but until future observation has cleared up this point it will be better to characterize it as distinct.

CEBLEPYRIS HUMERALIS. Mas. *Cebl. fronte, vertice, nuchâ dorsoque nitide viridescenti-nigris; humeris, tectricibusque superioribus caudæ; alis nigris secundariis albo marginatis; dorso inferiore et uropygio cinereis; caudâ obscure nigrâ, plumis duabus externis utrinque apicibus albis; gulâ, pectore corporeque subtus rostro pedibusque nigris.*

Fœm. *vertice, nuchâ, dorsoque superiore brunneis; dorso inferiore, uropygio caudâque ut in mare; tectricibus majoribus minoribusque caudæ badio marginatis; secondariis mare latioribus albo marginatis; gulâ corporeque subtus fusco-albis; rostro pedibusque nigris.*

Long. tot. unc. $6\frac{1}{2}$; *rostri*, $\frac{3}{4}$; *alæ*, 4; *caudæ*, $6\frac{1}{4}$; *tarsi*, $\frac{7}{8}$.

Hab. in Novâ Cambriâ Australi.

Obs. Nearly allied to *Ceblepyris leucomela* (*Campephaga leucomela*, Vig. and Horsf.; *Lanius Karu*, Less.), but differing from that species in its smaller size, in the greater extent of the white mark on the shoulders, and in nearly wanting the stripe of white which crosses the secondaries.

FALCUNCULUS LEUCOGASTER. *Falc. fronte albâ, cristâ occipitali nigrâ; genis albis lineâ nigrâ notatis ad nucham extendente; dorso, humeris, tectricibusque caudæ et uropygio olivaceo-flavis; primariis secondariisque brunneis, olivaceo marginatis; rectricibus caudæ duabus externis albis, duabus intermediis olivaceis, reliquis brunneis, olivaceo-marginatis; gulâ olivaceo-viridi; pectore tectricibusque caudæ inferioribus nitide sulphureo-flavis; abdomine femoribusque albis; rostro nigro; pedibus plumbaceis.*

Long. tot. unc. 6; *rostri*, $\frac{5}{8}$; *alæ*, $3\frac{3}{8}$; *caudæ*, $2\frac{7}{8}$; *tarsi*, $\frac{3}{4}$.

Hab. in Australiâ.

Obs. For a knowledge of this new species of true *Falcunculus*, I am indebted to the Earl of Derby, who lent me the example from which the above characters are taken; and which, from the olive colouring of the throat, may probably prove to be a female.

FALCUNCULUS FLAVIGULUS. *Falc. loro albo; vertice et strigâ ab oculo usque ad latus colli nigrescenti-brunneis, super infraque strigis albis; dorso, tectricibusque superioribus caudæ viridescenti-albis; gulâ olivaceo-viridi; alis fuscis, pallidè brunneo marginatis; caudâ fuscâ, rectricibus tribus utrinque plus minusve albo notatis; mento maculâ albâ; gulâ, pectore, abdomine tectricibusque inferioribus caudæ nitide flavis; rostro pedibusque cyaneo-nigris.*

Long. tot. unc. $5\frac{3}{4}$; *alæ*, $3\frac{3}{8}$; *caudæ*, $2\frac{7}{8}$; *tarsi*, $\frac{3}{4}$.

Hab. in Australiâ.

Obs. This species, independently of its smaller size, may be readily distinguished from all others, by the uniform yellow colouring of the under surface, from the chin to the vent. It would seem that this bird was overlooked by Messrs. Vigors and Horsfield, who appear to have thought it identical with *Fal. gutturalis.*

EOPSALTRIA PARVULA. *Eop. vertice, auricularibus, nuchâ dorsoque cinereis; gulâ pectoreque inferiori griseis; uropygio olivaceo; alis brunneis; caudâ brunneâ, rectricibus apicibus griseis; pectore corporeque subtùs nitidè flavis; rostro nigro; pedibus brunneis.*

Long. tot. unc. $5\frac{1}{2}$; *rostri*, $\frac{5}{8}$; *alæ*, 3; *caudæ*, $2\frac{1}{2}$; *tarsi*, $\frac{3}{4}$.

Hab. in Novâ Cambriâ Australi.

Obs. The genus *Eopsaltria* was instituted by Mr. Swainson for the Yellow-Breasted Thrush of Lewin (*Pachycephala Australis* of Vig. and Horsf.), to which the present bird is nearly allied.

EOPSALTRIA GRISEO-GULARIS. *Vertice, auricularibus, nuchâ dorsoque griseis; gulâ pectoreque cinerescenti-albis; abdominè, uropygio, tectricibusque superioribus et inferioribus caudæ nitide flavis; alis caudâque fuscis; caudâ ad extremum apicem albâ; rostro pedibusque nigrescenti-brunneis.*

Long. tot. unc. 6; *rostri*, $\frac{3}{4}$; *alæ*, $3\frac{1}{4}$; *caudæ*, $2\frac{5}{8}$; *tarsi*, $\frac{7}{8}$.

Hab. in Australiâ apud flumen Cygnorum.

Obs. Closely allied to *Eopsaltria Australis.* In the collection at Fort Pitt, Chatham.

Sericulus magnirostris. *Ser. fronte, gulæ lateribus, corporeque subtùs griseis, singulis plumis brunneo marginatis; maculâ occipitali nigrâ et quadratâ; lineâ nigrâ irregulari in gutture centrali; nuchâ, dorso, scapulisque cinerescenti-albis, margine brunneo circumdatis; alis, uropygio, caudâque olivaceo-brunneis; rostro pedibusque nigris.*

Long. tot. unc. $11\frac{1}{2}$; *rostri*, $1\frac{1}{4}$; *alæ*, $5\frac{1}{2}$; *caudæ*, $4\frac{3}{4}$; *tarsi*, $1\frac{1}{2}$.

Hab. in terrâ Van Diemen?

Obs. This is in every respect a true *Sericulus*, and from what we know of the changes of the common species *Ser. chrysocephalus*, I conceive that it may prove to be a female, or immature bird.

OREOCINCLA. Genus novum.

Rostrum capitis longitudinem æquans vel superans, subincurvatum, lateraliter compressum, mandibulâ superiore apice prominente, denticulâ ab apice longè amotâ, *gonide* acuto; *rictus* setis paucis brevibus instructus; *alæ* mediocres, rigidæ, remige 1^{mo} brevissimo, 4^{to} et 5^{to} ferè æqualibus et longissimis; *cauda* subbrevis, quadrata, plumis rigidis; *tarsi* mediocres, squamis integris; *digiti* graciles, posticus præcipuè, digitis lateralibus ferè æqualibus, interno breviore; *plumæ* sericeæ.

Typi sunt, *Oreocincla Novæ Hollandiæ et Turdus varius*, Horsf.

Oreocincla macrorhyncha. *Or. summo capite, corpore supra, olivaceo-brunneis, singulis plumis nigro ad apicem leviter marginatis; caudâ alisque olivaceo-brunneis; secondariis badio leviter marginatis; rectricibus duabus externis utrinque ad apicem albis; gulâ corporeque subtus cervino-albis, singulis plumis, maculis nigris lanceolatis ad apicem notatis; rostro alâque spuriosâ ad apicem nigrescenti-brunneis; pedibus pallidè brunneis.*

Long. tot. unc. $10\frac{1}{2}$; *rostri*, $1\frac{5}{8}$; *alæ*, $5\frac{1}{2}$; *caudæ*, $4\frac{1}{2}$; *tarsi*, $1\frac{1}{4}$.

Hab. in Novâ Zealandiâ.

Obs. Nearly allied to, but differing from, the *Turdus varius* of authors, in the much larger size of the bill, and in the deeper black colouring of the margins of the feathers. In the British Museum.

Familia ——— ?

SYMMORPHUS. Genus novum.

Rostrum subbreve, tumidum; *mandibulâ* superiori ad apicem leviter emarginatâ; *culmine commissurâque* subarcuatis; *nares* basales, ovales et plumis frontalibus ferè occultatæ; *alæ* mediocres, remige 1^{mo} breviore, 2^{do} per dimidium; 3^{tio}, 4^{to} et 5^{to} longissimis et inter se ferè æqualibus; *cauda* mediocris, rectrice externâ utrinque per partem quartam cæteris breviore; *tarsi* et *pedes* mediocres, illi anticè scutellati; *digito* postico cum *ungue*, medio breviori; *digitis* lateralibus inæqualibus, interno brevissimo.

Symmorphus leucopygus. *Sym. loro nigrescenti-brunneo; lineâ supra-oculari cervino-albâ; summo capite, nuchâ, dorsoque* *intensè rufo-fuscis; humeris, tectricibus majoribus alarum ad apices, uropygio, gulâ corporeque subtùs albis, badio pallidè lavatis; primariis secondariisque nigrescenti-brunneis, badio obscurè marginatis; rectricibus caudæ quatuor mediis brunneis, ad apices cinerescenti-albis, tribus externis utrinque ad basin per dimidiam partem brunneis, per reliquam partem albis; rostro pedibusque nigris.*

Long. tot. unc. $7\frac{3}{4}$; *rostri*, $\frac{7}{8}$; *alæ*, $3\frac{1}{2}$; *caudæ*, $3\frac{1}{2}$; *tarsi*, 1.
Hab. in Novâ Cambriâ Australi.

ACANTHIZA MAGNIROSTRA. *Ac. vertice, corpore superiore, alis caudâque olivaceo-fuscis; hâc, fronteque rufescentibus; gulâ pectoreque cinereis; lateribus olivaceis; rostro nigro; pedibus brunneis.*

Long. tot. $4\frac{3}{4}$ unc.; *rostri*, $\frac{3}{4}$; *alæ*, $2\frac{1}{4}$; *caudæ*, $1\frac{7}{8}$; *tarsi*, $\frac{3}{4}$.
Hab. in Novâ Cambriâ Australi.

ACANTHIZA UROPYGIALIS. *Ac. capite, corpore suprà, alisque fuscis, levitèr olivaceo lavatis; uropygio tectricibusque caudæ lætè castaneis; caudâ nigrescenti-fuscâ, latè ad apicem albo notatâ; gulâ, pectore, abdomineque medio griseis; lateribus, crissoque pallidè cervinis; rostro, pedibusque nigris.*

Long. tot. $3\frac{3}{4}$ unc.; *rostri*, $\frac{1}{2}$; *alæ*, 2; *caudæ*, $1\frac{3}{4}$; *tarsi*, $\frac{3}{4}$.
Hab. in Novâ Cambriâ Australi.

ACANTHIZA DIEMENENSIS. *Ac. fronte rufo-brunneo, notis semilunaribus cervinis, fuscoque adspersis, corpore superiore, alisque intensè olivaceo-fuscis; tectricibus caudæ fuscis, castaneo lavatis; rectricibus olivaceis, nigrescenti-fusco fasciatis; genis, gulâ, pectoreque cinereis, irregularitèr fusco adspersis; abdomine, crissoque cinerescenti-albis rufo tinctis, hôc colore in crisso lateribusque prævalente; rostro pedibusque pallidè brunneis.*

Long. tot. 4 unc.; *rostri*, $\frac{9}{16}$; *alæ*, $2\frac{1}{4}$; *caudæ*, 2; *tarsi*, $\frac{3}{4}$.
Hab. in terrâ Van Diemen.
Obs. Nearly allied to *Acanthiza pusilla.*

ACANTHIZA LINEATA. *Ac. vertice fusco-olivaceo, albo delicatè striato; dorso, alis, caudâque olivaceis; hâc apicem versus nigrescente fasciatâ, ad apicem cinerescenti-fuscâ; gulâ, pectoreque cinereis, olivaceo lavatis, et irregularitèr fusco guttatis; rostro pedibusque fuscis.*

Long. tot. $3\frac{3}{4}$ unc.; *rostri*, $\frac{3}{8}$; *alæ*, 2; *caudæ*, $1\frac{5}{8}$; *tarsi*, $\frac{5}{8}$.
Hab. in Novâ Cambriâ Australi.

SYLVIADÆ? *Fam.*

PSILOPUS. Genus novum.

Rostrum capite brevius, tumidum, ad apicem dentatum, tomiis rectis; *nares* basales, laterales, ovales; *rictus* setis paucis gracilibus obsitus; *alæ* mediocres, remige primo ferè spurio, secundo elongato, tertio, quarto, quintoque longissimis et inter se æqualibus; *cauda* brevis et æqualis: *tarsi* læves, graciles, mediocres; *digiti* perbreves et debiles, externi utrinque æquales et intermedio adjuncti ferè ad articulum primum ; *ungues* incurvi.

Typus est *Psilopus albogularis.*

Psilopus brevirostris. *Psil. rostro perbrevi, pallidè fusco ; strigâ superciliari flavescente ; vertice fuscescenti-cinereo ; nuchâ olivaceâ ; dorso, uropygio, tectricibusque caudæ olivaceis ; plumis auricularibus, genisque pallidè rufo-brunneis ; gulâ, pectoreque albis, olivaceo lavatis, strigisque fuscis longitudinalibus, levitèr ornatis ; abdomine pallide citrino ; rectricibus caudæ intermediis duabus fuscis ; reliquis ad basin fuscis dein nigrescente fasciatis, et internè albo notatis, apicibus pallidè fuscis ; pedibus nigrescentibus.*

Long. tot. $3\frac{1}{2}$ unc. ; *rostri,* $\frac{3}{8}$; *alæ,* 2 ; *caudæ,* $1\frac{1}{2}$; *tarsi,* $\frac{1}{2}$.

Hab. in Novâ Cambriâ Australi.

Obs. In my own Collection.

Psilopus fuscus. *Psil. vertice, corporeque toto supernè, saturatè fuscis, levitèr olivaceo tinctis ; rectricibus caudæ duabus intermediis fuscis ; reliquis ad basin albis, dein nigrescenti-fusco latè fasciatis, exindè albo notatis, apicibus pallidè fuscis ; gulâ, pectoreque cinereis ; abdomine, crissoque albis ; rostro pedibusque intensè fuscis.*

Long. tot. $3\frac{3}{4}$ unc. ; *rostri,* $\frac{1}{2}$; *alæ,* $2\frac{1}{4}$; *caudæ,* $1\frac{3}{4}$; *tarsi,* $\frac{3}{4}$.

Hab. in Australiâ.

Obs. In the Collection of the Earl of Derby.

Psilopus olivaceus. *Psil. strigâ superciliari a basi mandibulæ flavâ ; vertice, corporeque suprà olivaceis ; alis fuscis, plumis extùs olivaceo marginatis ; rectricibus caudæ duabus intermediis fuscis ; reliquis ad basin fuscis, dein albo, nigrescenti-fusco, iterùmque albo fasciatis, apicibus fuscis ; rostro pedibusque fuscis.*

Long. tot. $4\frac{1}{4}$ unc. ; *rostri,* $\frac{1}{2}$; *alæ,* $2\frac{1}{8}$; *caudæ,* $1\frac{5}{8}$; *tarsi,* $\frac{5}{8}$.

Hab. in Novâ Cambriâ Australi.

Psilopus albogularis. *Psil. vertice, plumis auricularibus, corporeque suprà olivaceo-fuscis ; gulâ albâ ; pectore corporeque subtùs lætè citrinis ; rectricibus caudæ duabus intermediis fuscis, reliquis ad basin fuscis, albo, dein latè nigrescenti-fusco fasciatis, et internè ad apicem cervinis ; rostro, pedibusque intensè fuscis.*

Long. tot. $4\frac{1}{4}$ unc. ; *rostri,* $\frac{1}{2}$; *alæ,* $2\frac{3}{8}$; *caudæ,* $1\frac{3}{4}$; *tarsi,* $\frac{5}{8}$.

Hab. in Novâ Cambriâ Australi.

Petroica modesta. *Pet. summo capite, corpore suprà, alis caudâque rufo-brunneis ; gulâ albâ, brunneo lavatâ ; pectore et abdomine centrali coccineo lavatis ; abdominis inferiori, crissoque albis ; lateribus brunneis ; rostro nigrescenti-brunneo ; pedibus flavescenti-brunneis.*

Long. tot. unc. 5 ; *rostri,* $\frac{5}{8}$; *alæ,* $2\frac{5}{8}$; *caudæ,* 2 ; *tarsi,* $\frac{7}{8}$.

Hab. in Novâ Hollandiâ apud oram orientalem.

Obs. The female resembles the male, but is rather lighter in colour, and has only an indication of the scarlet tinge on the chest and sides.

Origma. Genus novum.

Rostrum, caput quoad longitudinem ferè æquans, incurvatum, carinatum, ad apicem denticulatum; *nares* ovales, laterales, basales operculoque ferè tectæ; *alæ* mediocres, remige 1^{mo} brevissimo, 4^{to}, 5^{to}, 6^{to}, 7^{moque} longissimis et inter se ferè æqualibus; *cauda* mediocris et subrotundata; *tarsi* mediocres; *digiti* breves, interno longior externus.

Typus est *Saxicola solitaria*, Vig. et Horsf. Rock Warbler, Lewin, Pl. xvj.

Ephthianura. Genus novum.

Rostrum capite brevius, ferè rectum, lateraliter compressum, ad apicem indentatum; *nares* basales, lineares, membranâ tectæ; *alæ* elongatæ, remige, 1^{mo} spurioso, 2^{do} longo, 3^{tio} et 4^{to} longissimis et inter se æqualibus; tertiariis longis; *cauda* brevis et truncata; *tarsi* integri, mediocres, graciles; *digiti* graciles, posticus cum ungue medio brevior; *digitus* internus, externo brevior.

Typus est, *Acanthiza albifrons*, Jord. et Selb.

Ephthianura aurifrons. *Ephth. capite, tectricibus superioribus caudæ, lateribus nuchæ, pectore corporeque nitidè aurantiacis, hôc colore in fronte et centrali abdomine prævalente; dorso olivaceo; alis brunneis olivaceo marginatis; caudâ obscurè fuscâ singulis rectricibus, duabus intermediis exceptis ad apicem internè albo maculatis; mento et gulâ centrali nigris; rostro nigro; pedibus brunneis.*

Long. tot. unc. 4; *rostri*, $\frac{5}{8}$; *alæ*, $2\frac{1}{2}$; *caudæ*, $1\frac{1}{2}$; *tarsi*, $\frac{3}{4}$.

Hab. in Novâ Cambriâ Australi.

Obs. In the Collection of the Zoological Society.

Malurus longicaudus. Mas. *Mal. summo capite, strigâ infra aures, dorsoque anteriore, obscurè cyaneis; nuchâ, scapulis, dorso uropygioque obscurè nigris; gutture pectoreque azureo-nigris; corpore infra cinerescenti-albo, lateribus brunnescentibus; rectricibus caudæ obscurè cyaneis, pallidioribus apicibus; rostro nigro; tarsis brunneis.* Fœm. *Corpore supra, alis caudâque rufo leviter tinctis; lineâ in fronte et super oculos, rostro pedibusque rufescenti-fuscis.*

Long. tot. unc. 5; *rostri*, $\frac{5}{8}$; *alæ*, 2; *caudæ*, $2\frac{7}{8}$; *tarsi*, 1.

Hab. in terrâ Van Diemen.

Obs. This species is closely allied to *Mal. cyaneus*, but is more richly coloured, and exceeds it in all its measurements, particularly in the length of the tail.

Pardalotus quadragintus. *Pard. vertice, corporeque suprà olivaceis, plumis fusco levitèr marginatis; alis nigrescentibus, remigibus (primo et secundo exceptis), ad apicem albis; genis, crissoque flavescenti-olivaceis; corpore subtùs cinerescenti-albo; rostro intensè fusco; pedibus fuscis.*

Long. tot. $3\frac{3}{4}$ unc.; *rostri*, $\frac{3}{8}$; *alæ*, $2\frac{1}{4}$; *caudæ*, $1\frac{1}{4}$; *tarsi*, $\frac{3}{4}$.

Obs. This is the 'Forty-spot' of the colonists of Van Diemen's

Land, so called from the numerous white spots with which it is adorned.

Hab. in terrâ Van Diemen.

Pardalotus melanocephalus. *Pard. vertice, loro, plumisque auricularibus nigris; strigâ superciliari auranticâ oriente, albâ desinente; genis collique lateribus albis; nuchâ, dorsoque cinerescenti-olivaceis; rectricibus caudæ fuscescenti-cervinis; caudâ nigrâ, ad apicem albâ; alis nigrescenti-fuscis; remigibus tertio, quarto, quinto, sexto, septimoque albis; secondariis albo marginatis atque terminatis; lineâ albâ obliquè per humeros abductâ; alâ spuriâ coccineo terminatâ; lineâ gutturali, pectore, abdomineque medio lætè flavis; crisso cervino; rostro nigro; pedibus fuscis.*

Long. tot. 4 unc.; *rostri*, $\frac{3}{8}$; *alæ*, $2\frac{1}{2}$; *caudæ*, $1\frac{1}{2}$; *tarsi*, $\frac{3}{4}$.

Hab. in Novâ Cambriâ Australi, apud oram orientalem.

Pardalotus rubricatus. *Pard. fasciâ frontali angustâ sordidè albâ; vertice, et occipite nigris, albo guttatis; nuchâ, dorso, uropygio, tectricibusque alarum cinereis; alis intensè fuscis; alâ spuriâ, primariis ad basin, secondariisque ad marginem externum lætè aurantiacis; notâ flammeâ ante oculos; strigâ super-oculari cervinâ; tectricibus caudæ olivaceis; caudâ intensè fuscâ, ad apicem albâ; gulâ abdomineque cinereis; pectore flavo; mandibulâ superiore fuscâ, inferiore cinereâ; pedibus fuscis.*

Long. tot. 4 unc.; *rostri*, $\frac{5}{8}$; *alæ*, $2\frac{1}{2}$; *caudæ*, $1\frac{1}{2}$; *tarsi*, $\frac{3}{4}$.

Hab. in Australiâ.

Obs. In my own Collection.

Pachycephala xanthoprocta. *Pach. vertice, corporeque suprà olivaceis, hôc colore, ad crissum, et ad marginem remigum alæ, rectricumque caudæ, lætiore; abdomine pallidè fusco; crisso flavo; rostro ad apicem nigro, ad basin brunneo; pedibus fuscis.*

Long. tot. 6 unc.; *rostri*, $\frac{5}{8}$; *alæ*, $3\frac{1}{2}$; *caudæ*, 3; *tarsi*, $\frac{7}{8}$.

Hab. in Novâ Cambriâ Australi, apud oram orientalem.

Obs. This may possibly prove to be the female of some species the male of which is at present unknown.

Pachycephala longirostris. *Pach. vertice, corpore superiore, alisque olivaceis, primariis, secondariis, tectricibus, rectricibusque caudæ ad marginem nitidè olivaceo-aureis; gulâ, pectoreque pallidè cinerescenti-fuscis; crisso flavo; rostro nigrescenti-fusco; pedibus brunneis.*

Long. tot. 7 unc.; *rostri*, $\frac{7}{8}$; *alæ*, 4; *caudæ*, $3\frac{1}{4}$; *tarsi*, 1.

Hab. in Novâ Cambriâ Australi, apud oram orientalem.

SPHENOSTOMA. Genus novum.

Rostrum breve, durum, lateralitèr compressum, et cuneiforme; *nares* basales, rotundatæ, opertæ; *rictus* rectus; mandibulâ superiori haud dentatâ; setis delicatis ad basin sparsis; *alæ* perbreves et rotundatæ, remigibus quarto, quinto, et sexto ferè æqualibus et longissimis; *cauda* elongata, et gradata; *tarsi* mediocres, robusti, anticè squamis tecti, posticè læves; *pedes* breves; *digito* postico valido, digitis externis inæqualibus, interno brevissimo.

SPHENOSTOMA CRISTATUM. *Sphen. capite plumis angustis acutis anticè curvatis cristato; corpore suprà et subtùs omninò fusco; abdomine medio cinerescenti-albo; caudâ fuscâ; rectricibus tribus utrinque ad apicem albis; rostro nigrescente; pedibus plumbeis.*

Long. tot. 8 unc.; *rostri,* $\frac{1}{2}$; *alæ,* $3\frac{1}{8}$; *caudæ,* $4\frac{1}{4}$; *tarsi,* $\frac{7}{8}$.
Hab. in Novâ Cambriâ Australi, apud oram orientalem.
Obs. This species is closely allied to *Struthidea.*

CINCLORAMPHUS. Genus novum.

Rostrum capite subbrevius; *culmen* leviter arcuatum, apice emarginato; *commissura* ad basin subangulata, incurvata per reliquam totam longitudinem; *nares* laterales, ovales; *alæ* mediocres, rigidæ; *remige* 1^{mo} longo, 2^{do} et 3^{tio} longissimis; *cauda* subparva, cuneiformis; *tarsi* robusti antice scutellati; *digiti* elongati, robusti, præcipuè posticus, qui ad basin tarsi est articulatus.
Typus est *Megalurus cruralis,* Vig. et Horsf.

DASYORNIS? BRUNNEUS. *Das. summo capite, corpore supra, alis lateribus caudâque, flavo-brunneis; gutture, lateribus faciei, et abdomine medio, fusco-albis; rostro ad apicem obscurè fusco, ad basin pallidiore; pedibus brunneis.*

Long. tot. unc. $5\frac{3}{4}$; *rostri,* $\frac{5}{8}$; *alæ,* $2\frac{1}{8}$; *caudæ,* 3; *tarsi,* $\frac{3}{4}$.
Hab. in Australiâ.

CALAMANTHUS. Genus novum.

Rostrum capite brevius, ad basin tumidum versus apicem lateraliter compressum, *culmine* prominente et acuto; *nares* laterales, magnæ, ovales et operculo tectæ; *rictus* sine setis; *alæ* breves, rotundatæ, *remige* 4^{to} longissimo, 3^{tio}, 5^{to}, 6^{to} et 7^{mo} inter se æqualibus; *cauda* perbrevis et rotunda; *tarsi* mediocres, scutellis indistinctis antice instructi; *hallux* subelongatus, ungue elongato munitus; *digiti* laterales inæquales, externus brevior.
Typus est *Anthus fuliginosus,* Vig. et Horsf.

CYSTICOLA RUFICEPS. *Cyst. summo capite, nuchâ, pectore, lateribus, femoribus, uropygioque delicatè cervinis, hôc colore in fronte et uropygio prævalente; dorso superiore, secondariis, caudâque obscurè fusco-nigris, singulis plumis, marginibus badiis circumdatis; gutture et abdomine centrali albis; rostro brunneo; pedibus flavo-brunneis.*

Long. tot. unc. 4; *rostri,* $\frac{1}{2}$; *alæ,* $1\frac{7}{8}$; *caudæ,* $1\frac{3}{8}$; *tarsi,* $\frac{3}{4}$.
Hab. in Novâ Cambriâ Australi.

Familia ———— ?

OREOÏCA. Genus novum.

Rostrum capite brevius, robustum, lateribus compressis, ad apicem emarginatum; *maxilla* inferior, superiorem in robore ferè æquans; *nares* basales, rotundatæ, tenuibus, brevibus, capillaribus plumis (paucis elongatis intermixtis) ferè tectæ; *alæ* subelongatæ, remige 1mo brevi, 3tio longissimo; tertiariis perlongis, primarias ferè æquantibus; *cauda* brevis et subrotundata; *tarsi* sublongi et robusti, posticè integri, anticè scutellis duris muniti; *pedes* ambulatorii; *digiti* perbreves, posticus brevissimus, externo subbrevior internus; *ungues* breves et ferè recti.

Typus est *Falcunculus gutturalis*, Vig. et Horsf.

CALYPTORHYNCHUS XANTHONOTUS. *Cal. summo capite, genis, gutture, corporeque suprà et infrà fusco-nigris; plumis pectoralibus, apicibus olivaceis; auricularibus flavis; rectricibus caudæ duabus intermediis nigro-fuscis, reliquis ad bases et apices nigris, in mediis pallidè flavis, interdum plùs minùsve brunneo notatis; rostro albo, vel nigrescenti-brunneo; pedibus obscurè fuscis.*

Long. tot. unc. 24; *alæ*, $14\frac{1}{2}$; *caudæ*, 12; *tarsi*, 1.

Hab. in terrâ Van Diemen.

Obs. Nearly allied to *Cal. Baudinii* and *Cal. funereus.*

PLATYCERCUS HÆMATONOTUS. *Plat. summo capite, nuchâ, genis, pectoreque smaragdino-viridibus, in fronte, genisque pallidioribus; dorso brunnescenti-viridi; uropygio coccineo; scapulâ infrà, alâ spuriosâ, marginibusque primariorum externis per partes basales, nitidè cyaneis; scapulâ centrali, maculâ sulphureâ notatâ: tectricibus alæ majoribus inferioribusque, cæruleo-viridibus; tectricibus caudæ rectricibusque duabus intermediis viridibus, hoc colore in cæruleis apices versus transeunte, apicibus ipsis nigro-fuscis; rectricibus reliquis ad bases viridibus, hoc colore in cinerescenti-albo ad interna pogonia apicesque transeunte; abdomine centrali flavo; femoribus cæruleo-viridibus; crisso cinerescenti-albo; rostro corneo; pedibus brunneis.*

Long. tot. unc. 11; *alæ*, 5; *caudæ*, $6\frac{1}{2}$; *tarsi*, $\frac{5}{8}$.

Obs. This species unites *Platycercus* to *Nanodes*, and is in fact so directly intermediate between these genera in size and other characters, that it is difficult to decide to which of them it should be referred.

SITTELLA PILEATA. *Sitt. fronte, strigâ superciliari, gulâ, pectore abdomineque medio albis; vertice nigro; plumis auricularibus, nuchâ, dorsoque cinerescenti-fuscis; hujus lineâ saturatiore per medias plumas excurrente; uropygio albo; tectricibus caudæ, crissoque, cinerescenti-fuscis, fusco alboque variegatis; caudâ nigrâ ad apicem albâ; alis nigrescenti-fuscis, notâ rufâ centrali; lateribus et ventre cinerescenti-fuscis; rostro ad basin flavo, ad apicem nigro; pedibus flavis.*

Long. tot. $4\frac{3}{4}$ unc.; *rostri*, $\frac{7}{8}$; *alæ*, $3\frac{1}{2}$; *caudæ*, $1\frac{5}{8}$; *tarsi*, $\frac{5}{8}$.

Hab. in Australiâ, apud Flumen Cygnorum.

SITTELLA MELANOCEPHALA. *Sitt. vertice, occipite, plumisque, auricularibus nigris; dorso plumisque scapularibus cinerescenti-fuscis; alis nigris, primariis secondariisque plùs minùsve rufo notatis; uropygio, tectricibusque caudæ albis; caudâ nigrâ ad apicem albo notatâ; crisso albo, fusco fasciato; palpebris aurantiacis; rostro ad basin carneo, ad apicem nigro; pedibus flavis.*
Long. tct. $4\frac{3}{4}$ unc.; *rostri*, $\frac{3}{4}$; *alæ*, $3\frac{1}{2}$; *caudæ*, $1\frac{5}{8}$; *tarsi*, $\frac{5}{8}$.
Hab. in Australiâ, apud Flumen Cygnorum.

SITTELLA LEUCOCEPHALA. *Sitt. capite, gulâ, corporeque, subtùs albescentibus, hôc lineis cinereo-fuscis longitudinalibus notato; corpore suprà cinerescenti-fusco; uropygio albo; caudâ fuscâ albo terminatâ; alis fuscis; primariis secondariisque latè rufo fasciatis; crisso fusco, albo variegato; rostro aurantiaco, ad apicem fusco; pedibus flavis.*
Long. tot. $4\frac{1}{2}$ unc.; *rostri*, $\frac{5}{8}$; *alæ*, $2\frac{3}{4}$; *caudæ*, $1\frac{1}{2}$; *tarsi*, $\frac{1}{2}$.
Hab. in Australiâ.

MELIPHAGA SERICEOLA. *Mel. summo capite, loro, orbitis, guttureque nigris; fasciâ, indistinctâ super oculos et in fronte, albâ; genis, plumis capillaribus albis; nuchâ, dorso, uropygio, nigro-fuscis, singulis plumis brunnescenti-albo marginatis, hoc colore ad nucham prævalente; alis caudâque nigro-fuscis; primariis, secondariis flavis; rectricibus ad partes basales flavo-marginatis, et ad apices cinereo-albis, duabus intermediis exceptis; pectore corporeque subtùs albis, singulis plumis, lineis centralibus fusco-nigris; rostro nigro; pedibus obscurè brunneis.*
Long. tot. unc. $5\frac{1}{4}$; *rostri*, $\frac{7}{8}$; *alæ*, $2\frac{1}{2}$; *tarsi*, $\frac{3}{4}$; *caudæ*, $2\frac{1}{2}$.
Hab. in Australiâ.

Obs. This species very closely resembles in its markings the *Meliphaga sericea*: it is however full a third less in all its proportions, and is without doubt distinct.

MELIPHAGA INORNATA. *Mel. summo capite, corpore suprà, alis caudâque obscurè olivaceo-brunneis; primariis, secondariis et rectricibus caudæ (duabus intermediis exceptis) ad bases flavo marginatis; gutture, pectoreque superiori brunneis; abdomine centrali brunnescenti-albo; lateribus brunneis; rostro pedibusque brunneo-nigris.*
Long. tot. unc. $5\frac{1}{2}$; *rostri*, $\frac{3}{4}$; *alæ*, $2\frac{1}{2}$; *caudæ*, $2\frac{1}{2}$; *tarsi*, $\frac{7}{8}$.
Hab. in terrâ Van Diemen.

Obs. Closely allied to *Mel. Australasiana*, but distinguished from it by the obscurity of its markings.

ACANTHAGENYS. Genus novum.

Rostrum caput æquans, compressum, levitèr arcuatum, ad apicem acutum, *naribus* sub-basalibus, mandibulæ superioris tomiis ad apicem indentatis, et delicatè serratis; plagâ nudâ a basi mandibulæ infra oculos excurrente; genis infra plagam spinis subrigidis tectis; *alæ* mediocres; remige primo brevissimo, tertio, quarto, et quinto æqualibus ceterosque excellentibus; *cauda* mediocris subæqualis; *pedes* validi; digito postico forti, digitumque intermedium excellente; externo ad intermedium basalitèr adjuncto; unguibus incurvatis.

Hoc genus ad illud *Anthochæra* dictum appropinquat, differt caudâ æquali, plagâ faciali nudâ genisque spinosis.

ACANTHAGENYS RUFOGULARIS. *Acanth. capite superiore, dorso, alisque fuscis, plumis ad marginem pallidioribus; uropygio, tectricibusque caudæ albis, in medio fusco tinctis; strigâ post oculos, et ad latera colli nigrescente; super strigam lateralem colli, lineâ albescente, fusco adspersâ; setis genarum albis, et infrà ad basin mandibulæ inferioris lineâ plumarum, albo nigroque fasciatarum; gulâ pectoreque summo pallidè rufis; corpore subtùs sordidè albo, plumis fusco notatis; caudâ nigrescenti-fuscâ, apice albo; plagâ faciali nudâ, rostroque basi aurantiacis; rostri apice, pedibusque nigris.*

Long. tot. 9¾ unc.; *rostri*, 1⅛; *alæ*, 4½; *caudæ*, 4½; *tarsi*, 1.

Hab. in Novâ Cambriâ Australi.

ANTHOCHÆRA LUNULATA. *Anth. summo capite, nuchâ dorsoque anteriore olivaceo-brunneis; dorso inferiori uropygioque olivaceo-brunneis, singulis plumis, stemmatibus albis; tectricibus superioribus caudæ, olivaceo-brunneis, ad apices albis; primariis brunneis; secondariis tertiariisque brunneis, cinereo marginatis; rectricibus caudæ intermediis duabus, cinereo-fuscis; reliquis obscurè-fuscis, apicibus albis; plumis nuchæ lateralibus, elongatis; acutis cinereis; gulâ et nuchâ anteriore, pectore, corporeque infrà cinereo-brunneis; maculâ obliquâ niveâ ad latera; rostro nigrescenti-fusco; pedibus rufo-brunneis.*

Long. tot. unc. 12; *rostri*, 1⅜; *caudæ*, 6½; *alæ*, 5¼; *tarsi*, 1⅛.

Hab. in Australiâ, apud Flumen Cygnorum.

Obs. Nearly allied to *Anth. mellivora*, but differs in its smaller size, in having a considerably longer bill, and in being entirely destitute of white *striæ* down the head and back of the neck. In the Collection of Fort Pitt, Chatham.

PLECTORHYNCHA. Genus novum.

Rostrum capite brevius, levitèr arcuatum, ferè conicum, et acutum, *naribus* basalibus, operculo tectis; mandibulâ superiore obsoletè ad apicem indentatâ; *alæ* mediocres, *remige* primo brevissimo, tertio quartoque longissimis; *cauda* mediocris et æqualis; *tarsi* validi; *digito* postico cum ungue forti, et digitum intermedium anticum excellente; digitis lateralibus inæqualibus, externo longiore, et intermedio basalitèr conjuncto.

PLECTORHYNCHA LANCEOLATA. *Plec. vertice, plumis auricularibus, nuchâque, albo fuscoque variegatis; gulâ corporeque subtùs cinerescenti-albis; plumis pectoralibus sublanceolatis, et albis; corpore toto, caudâque supernè pallidè fuscis; rostro fuscescenti-corneo; pedibus nigris.*

Long. tot. 9 unc.; *rostri*, 1; *alæ*, $4\frac{1}{2}$; *caudæ*, $4\frac{1}{4}$; *tarsi*, 1.
Hab. in Novâ Cambriâ Australi.

ENTOMOPHILA. Genus novum.

Rostrum ferè capitis longitudinem æquans, ad basin latiusculum, dein compressum, et ad apicem, acutum; *mandibulæ* superioris tomiis arcuatis, et apicem versus levitèr indentatis; *nares* basales, ovales, in membranâ positæ, et operculo tectæ; *alæ* longiusculæ; *remige* primo spurio, secundo tertium ferè æquante, hôc longissimo; *cauda* brevis, sub-quadrata; *tarsi* breves, et subdebiles; digito posteriore brevi, forti; *digitis* externis haud æqualibus, interno paululùm breviore.

ENTOMOPHILA PICTA. Mas. *Ent. capite, genis, corporeque suprà nigris; plumis auricularibus posticè albo fimbriatis; alis nigris, primariis secondariisque extùs nitidè flavis; caudæ rectricibus nigris, extùs flavo marginatis, omnibusque (duabus internis exceptis) plùs minùsve extùs albo ad apicem notatis; gulâ, corporeque subtùs albis, hôc ad latera notis subfuscis longitudinalibus sparsè ornato; rostro flavescente; pedibus nigrescentibus.*

Fœm. vel mas junior? *Differt partibus fuscis, quæ in mare adulto nigræ; in cæteris mari simillima, flavo colore minùs nitido, rostroque ad apicem fusco.*

Long. tot. $5\frac{1}{2}$ unc.; *rostri*, $\frac{3}{4}$; *alæ*, $3\frac{5}{8}$; *caudæ*, $2\frac{3}{8}$; *tarsi*, $\frac{5}{8}$.
Hab. in Novâ Cambriâ Australi.

Obs. The disposition of the yellow markings of the wings and tail of this kind reminds us of the Goldfinch (*Carduelis elegans*, Steph.): the lengthened wing, broad and short tail, the great breadth of the bill at its base, and the short tarsi lead me to believe that this species feeds principally upon insects which it pursues and captures on the wing.

GLYCIPHILA? OCULARIS. *Glyc. summo capite, corpore suprà, alis caudâque, obscurè olivaceo-brunneis, hoc colore ad uropygium et rectrices caudales in luteo transeunte; pone oculos plumis paucis parvis nitidè brunneo-flavis; gulâ pectoreque cinereo-fuscis; abdomine crissoque olivaceo-cinereis; rostro pedibusque nigro-brunneis.*

Long. tot. unc. $5\frac{1}{4}$; *rostri*, $\frac{7}{8}$; *alæ*, $2\frac{3}{4}$; *caudæ*, $2\frac{1}{4}$; *tarsi*, $\frac{3}{4}$.
Hab. in terrâ Van Diemen.

GLYCIPHILA? SUBOCULARIS.

Obs. A species from New South Wales, which differs from *Glyc. ocularis* in being rather smaller, and in its more olive colouring.

ÆGIALITIS? CANUS. *Æg. fronte, lineâ supra-oculari, genis, gulâ corporeque subtùs, albis; summo capite, corporeque supra cinereo-fuscis; primariis obscurè brunneis, stemmatibus albis; caudâ brunneâ, singulis plumis marginibus albis; rostro pedibusque nigris, olivaceo tinctis.*

Long. tot. unc. $7\frac{1}{4}$; *rostri*, $\frac{7}{8}$; *alæ*, $3\frac{7}{8}$; *caudæ*, $2\frac{1}{4}$; *tarsi*, $1\frac{1}{8}$.
Hab. in Novâ Cambriâ Australi.

ERYTHROGONYS. Genus novum.

Rostrum capite longius, rectum, paulò depressum ; *nares* basales, lineares ; *alæ* elongatæ, remige primo longissimo ; tertialibus ferè ad apicem remigum tendentibus ; *cauda* brevis, et ferè æqualis ; *tarsi* elongati ; *digiti* quatuor ; postico parvulo ; anticis inter se conjunctis, usque ad articulum primum ; *tibiæ* ex parte nudæ.

ERYTHROGONYS CINCTUS. *Eryth. capite, plumis auricularibus, nuchâ, pectoreque nigris ; gulâ, abdomine medio, crissoque albis ; hôc fusco adsperso ; dorso, alis mediis, scapularibusque olivaceis, brunneo metallicè lavatis ; uropygio, rectricibus caudæ duabus intermediis fuscis, rectricibus reliquis albis ; lateribus castaneis ; tibiâ parte nudâ, cùm articulo, coccineâ ; tarsis olivaceo-fuscis ; rostro ad basin rubro, ad apicem nigro.*

Long. tot. 7 unc. ; *rostri*, 1 ; *alæ*, $4\frac{1}{4}$; *caudæ*, $1\frac{7}{8}$; *tarsi*, $1\frac{1}{2}$.
Hab. in Novâ Cambriâ Australi.

HÆMATOPUS AUSTRALASIANUS. *Hæm. capite, nuchâ, pectore, dorso, alis obscurè viridi-nigris ; rectricibus caudæ ad bases niveis ; tectricibus alæ ad apices, abdomine, uropygio, et tectricibus caudæ superioribus inferioribusque niveis ; rostro obscurè aurantiaco ; pedibus rubris.*

Long. tot. unc. 17 ; *rostri*, $3\frac{1}{8}$; *alæ*, $10\frac{3}{4}$; *caudæ*, $4\frac{1}{2}$; *tarsi*, $2\frac{1}{4}$.
Hab. in Novâ Cambriâ Australi.
Obs. Nearly allied to the *Hæm. ostralegus* of England.

RHYNCHÆA AUSTRALIS. *Rhyn. strigâ brevi pone oculum albâ ; nuchâ castaneâ, fasciis angustis indistinctis, viridi-brunneis ; summo capite obscurè brunneo ; genis, lateribus nuchæ nigro-brunneis ; mento albo ; dorso olivaceo-viridi, cinereo tincto, et obscurè brunneo irrorato ; pectore corporeque subtùs albis ; rostro rufo-brunneo ; pedibus obscurè fuscis.*

Long. tot. unc. $8\frac{1}{4}$; *rostri*, 2 ; *alæ*, $5\frac{1}{2}$; *caudæ*, $2\frac{1}{2}$; *tarsi*, $1\frac{1}{2}$.
Hab. in Novâ Cambriâ Australi.
Obs. Differs from the Chinese species by its extremely short toes and larger wing.

NUMENIUS AUSTRALIS. *Num. summo capite nuchâque nigrofuscis, singulis plumis cervino marginatis ; dorso nigrescenti-fusco, singulis plumis rubrescenti-cervino ad marginem irregularitèr maculatis ; tectricibus alæ nigro-fuscis, cinereo marginatis ; tertiariis brunneis, marginibus pallidioribus irregularitèr maculatis ; uropygio tectricibusque superioribus caudæ nigrofuscis, singulis plumis cinerescenti-cervino ad marginem fasciatis ; tectricibus majoribus alarum, nigro-fuscis, ad apicem albis ;* 1, 2, 3, 4, *et* 5, *primariis brunneis, stemmatibus albis, reliquis cum secondariis irregularitèr albo fasciatis ; lateribus faciei, gutture, corporeque infrà pallidè cervinis, singulis plumis, lineâ centrali nigrescenti-fuscâ ; rostro ad basin flavescenti-brunneo, ad apicem nigrescenti-brunneo ; pedibus olivaceis.*

Long. tot. unc. 20 ; *rostri*, $5\frac{3}{4}$; *alæ*, 11 ; *caudæ*, $4\frac{1}{2}$; *tarsi*, $\frac{3}{8}$.

Hab. in Novâ Cambriâ Australi.

Obs. Nearly allied to, but differs from, *Num. aquata* in the entire absence of the white rump; it is also rather less in size.

Sterna melanura. *Ster. summo capite corporeque suprà brunneis; primariis caudâque nigro-fuscis; caudâ furcatâ; fronte, gutture corporeque infrà albis; rostro pedibusque nigris.*

Long. tot. unc. 11; *rostri*, $1\frac{7}{8}$; *alæ*, 9; *caudæ*, $4\frac{3}{8}$; *tarsi*, $\frac{7}{8}$.

Hab. in Novâ Cambriâ Australi.

Obs. This appears to be an immature specimen. In the Collection of the United Service Museum.

Sula rubripes. *Sul. capite, pectore, gutture, abdomine crissoque fusco-albis; dorso, rectricibusque caudæ caryophillaceis; alis pallidè caryophillaceis, fusco-cinereis irroratis; primariis secondariisque nigro-fuscis; rostro flavescenti-carneo, apice nigro; pedibus nitidè rubro-aurantiacis.*

Long. tot. unc. 23; *rostri*, 4; *alæ*, 14; *caudæ*, 7; *tarsi*, $1\frac{3}{8}$.

Hab. in Novâ Cambriâ Australi.

Obs. The specimen from which this description was taken appeared to be somewhat immature. In the Collection of the United Service Museum.

Puffinus assimilis. *Puff. summo capite, corpore suprà, alis caudâque fuliginosis; lateribus faciei, gulâ eorporeque infrà albis; rostro fuscescenti-corneo; tarsis digitisque viridescenti-flavis; membranâ inter-digitali aurantiacâ.*

Long. tot. unc. 11; *rostri*, $2\frac{3}{8}$; *alæ*, $6\frac{1}{2}$; *caudæ*, 3; *tarsi*, $1\frac{1}{4}$.

Hab. in Novâ Cambriâ Australi.

Obs. Very closely allied to *Puffinus obscurus*, but considerably smaller.

Phalacrocorax carboïdes. *Phal. gulâ et faciei lateribus albis; summo capite, nuchâ corpore infrà, uropygio, caudâque nitidè nigro-viridibus; rectricibus caudæ 14; dorso, alis, lateribus superioribus nigro-brunneis, singulis plumis nitidè nigro-viridibus latè marginatis; nuchâ plumis gracilibus lanceolatis albis ornatâ; paucis apud femora externa; rostro corneo; pedibus nigris.*

Long. tot. unc. 34; *rostri*, 4; *alæ*, $13\frac{1}{2}$; *caudæ*, 8; *tarsi*, $2\frac{1}{4}$.

Hab. in terrâ Van Diemen.

Obs. Closely allied to the Common Cormorant of Europe (*Phal. Carbo*).

Phalacrocorax leucogaster. *Phal. fronte, summo capite, nuchâ uropygioque viridi-nigris; dorso tectricibusque alæ viridibus, singulis plumis nigro marginatis; primariis secondariisque nigris; gutture, lateribus nuchæ, corporeque infrà albis; rostro nigro, rubro tincto; pedibus nigris.*

Long. tot. unc. 26; *rostri*, 3; *alæ*, $11\frac{1}{2}$; *caudæ*, $5\frac{3}{4}$; *tarsi*, $2\frac{1}{4}$.

Hab. in Novâ Cambriâ Australi.

Phalacrocorax flavirhynchus. *Phal. summo capite, nuchâ, dorso, uropygio, crissoque nigris; tectricibus alæ et scapularibus cinereo-nigris; lineâ super-oculari, gutture, corporeque infrà albis; rostro nitidè aurantiaco, culmine fusco; pedibus fuscis.*

Long. tot. unc. 23; *rostri*, $2\frac{1}{4}$; *alæ*, $9\frac{3}{8}$; *caudæ*, $6\frac{1}{2}$; *tarsi*, $1\frac{1}{2}$.

Hab. in Novâ Cambriâ Australi.

Obs. This species is distinguished by its much smaller size from the preceding, and by the conspicuous line of white over each eye.

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